

MAGADH AMRAPALI AREA CENTRAL COALFIELDS LIMITED (Govt. of India Undertaking) CCL

Daled - 02-01-2019

The Nodal Officer Van Bhawan, Doranda Ranchi

Sub: Compliance report to the EDS raised in respect of Amrapali Railway siding (107.06 Ha) on 15.10.2018.

Dear Sir,

To,

In reference to Query raised in respect of Amrapali Railway siding on on 15.10.2018, point wise compliance is as under:

SI No.	Query Reference No.				Reply			
1.	B.2.4 In component wise breakup only	Component wise break up is as follows:						
	railway siding line has been mentioned. Please specify wether in the proposed alingment any culvert, bridges or any other structures are involved/ required or not.lf yes, then upload revised	Components	Forest Land		Total Area (Ha)	Non Forest Land		Total Area (Ha)
			Length (km)	Width (km)		Length (km)	Width (km)	
		Railway Siding	10.823	0.0989	107.03	4.0345	0.0989	39.90
	component wise breakup.	Culvert	0.025	0.01158	0.03	0.015	0.01132	0.02
					107.06			39.92
	railway siding is approved at the proposed place. (b) Whether proposed area is under mining lease or outside the mining lease?	Proposed area 30.08.2017 (No	falls unde otification	er area acq enclosed)	uired under	r the CBA ac	t vide SO no.	2832(E) c
3.	D.(ii) whether alternatives have been examined or not. If yes, then specify different alternatives examined. If not, then specify reason for not examining the same.	Evacution of co transportation be loaded on r The design of t of the mijne. In invlovement infrastructure of	for Amrap ailway way he desptch present o of more	bali OCP. As gons by a s n system re case also a land inclu	s per the Pr system of sil equires that ny other sit ding forest	oject Report o /Rapid Lo it should be te of the rail and as in	t of Amrapali ading System, e placed at clo lway siding w ncrease in tr	OCP coal w /MGR . se proximi ould requi ansportatio
100	Additional Information	Approved site l	avout plar	of the pro	posed site	has been	alaaad	and a second sec
4.	1.Upload approved site layout plan of the	Approved site	ayout plat	i or the pro	posed site i	uas ueen en	ciosea.	

proposed site.	
2. Submit authenticated land schedule of area with specific mention of	Land schedule authenticated by CO Tandwa on 21.12.2018 has been enclosed.
notified forest & jungle jhari area.	
3. Submit present land use map of entire	Landuse plan has been enclosed.
mining lease area mentioned in the environmental cleranace.	

Thanking you

Yours faithfully

Project Officer (Amrapali) Project Officer Amrapali OCP M-A Area (CCL)

CHAPTER-I

Introduction, concept of study and traffic facilities

1.0 Introduction

- 1.0.1 Among the 8 subsidiaries of Coal India Limited (CIL), Central Coalfields Limited (CCL), formerly known as National Coal Development Corporation (NCDC) Limited a Category-I Mini-Ratna Company. During 2013-14, coal production of the company reached its highest-ever figure of 50.022 MT (UG- 0.956 MT, OC- 49.066 MT).
- 1.0.2 NCDC started with a nucleus of 11 old State collieries (owned by the Railways) having a total annual coal production of 2.9 MT. With gradual rise in the demand of coal due to commissioning of new Power Plants and development of other coal-based industries, production of NCDC increased matching the requirement.
- 1.0.3 In the 2ndphase of nationalization, another state-owned company, Coal Mines Authority Limited (CMAL) came into being with headquarters at Kolkata to manage and develop NCDC collieries and other newly nationalized units. NCDC itself, in this process, became a division of CMAL which owned 36 collieries under commercial production in Bihar, Orissa, Madhya Pradesh and Maharashtra, besides 4 coal washeries, 1 by-product coke oven plant, 2big central workshops.
- 1.0.4 Formation of CMAL witnessed regrouping of the coal mines into three divisions, namely, Western, Central and Easterndone according to geographical location of the collieries. The CMAL, with its three divisions continued up to 1st November 1975 when it was renamed as Coal India Limited (CIL) following the decision of Government of India to restructure the coal industry. The Central Division of CMAL came to be known as Central Coalfields Limited (CCL) and became a separate company with the status of a subsidiary of CIL.
- 1.0.5 Presently CCL is managed by 12 administrative areas with 58 operative mines, out of which 21 are underground and 37 opencast. Among the 7 washeries, 4 (Kathara, Rajrappa, Kedla & Sawang) are for coking coal and 3 (Piparwar, Kargali & Gidi) are for non-coking coal. East Bokaro, West Bokaro, North Karanpura, South Karanpura, Ramgarh & Giridih are the 6 coalfields under CCL.
- 1.0.6 The main strength of CCL, so far as coal production is concerned, is its large opencast mines with mechanized coal production, mostly through shovel-dumper combination. The main OCP mines producing more than 2 MTPA are: (1) Piparwar, (2) Ashok, (3) K. D. Hesalong, (4) Amlo, (5) Kalyani and (6) Tarmi. An Index Plan showing the

oject Officer Amrapali OCP



different coal blocks and proposed route alignment on Topo sheet is shown as Annex-1.0.

- 1.0.7 Presently CCL has 26 Railway sidings from where coal is despatched to various customers located all over India. The total command area of about 2600 sq. kms. spreading over 6 major coalfields, fallentirely within the mineral rich State of Jharkhand in Eastern India. Out of the vast resources, only a small corner of these coalfields have yet been exploited, the majority of the planned mining blocks are as yet untouched.
- 1.0.8 CCL has envisaged commissioning of a number of Greenfield and expansion projects, both opencast and underground, during XI th Plan with state-of-the-art technologies. The project wise peak capacity, as targeted by CCL is shown below in Table-I:

l'able-i				
SI. No.	Name of the Project	Targeted peak capacity		
1.	Magadh OCP	20.00 MTPA		
2.	Amrapali OCP	12.00 MTPA		
3.	Karo OCP	03.50 MTPA		
4.	Konar OCP	03.50 MTPA		
5.	North Urimari OCP	03.00 MTPA		
6.	Churi Benti UGP	00.81 MTPA		
7.	Parej East UGP	00.51 MTPA		
8.	Pachra OCP	20.00 MTPA		

Table-I

1.1 Projected traffic & coal linkage

- 1.1.1 Amrapali Opencast Project in North Karanpura Coalfield has been identified for supplying coal to Barh Super Thermal Power Station (3 x 660 MW) of NTPC Limited and other end-users. CCL intends development & operation of Amrapali Open Cast mine with ultimate coal production capacity of 12.0 MTPA. Primarily, 4.50 MTPA of coal traffic from Amrapali block has been linked to NTPC's Barh Thermal Power Plant which is under process of commissioning near Barh station on Kiul-Patna section of East Central Railway.
- 1.1.2 At present there is no rail-head to connect these OCPs. Lack of rail connectivity is affecting the evacuation from CCL's existing mines in the area and delayed development of at least two large Open Cast Projects, e.g., Magadh (20 MTPA) and Amrapali (12 MTPA) both linked to NTPC's proposed power plants at Tandwa (1,980 MW) in Jharkhand and Barh-I (1,980 MW) in Bihar.
- 1.1.3 Two Upcoming rail link projects, e.g. (i) Koderma Hazaribagh Barkakana Ranchi (189 kms.) and (ii) Hazaribagh Shivpur Tori (162.30 kms.) are under process of



RITES

construction. While Railway has directly undertaken construction of the Koderma -Hazaribagh - Barkakana - Ranchi section as Railway project, the section Hazaribagh -Shivpur - Tori is under construction by Railways on 'deposit terms' at the cost of CCL. With the construction of Koderma - Tori section, proper excavation and despatch of coal from CCL's two mega mining projects,Magadh and Amrapali OCPs which are targeted to produce around 32 MTPA of coal, would be possible. Implementation of even the Tori-Shivpur segment would be a major boost to the company's production plan.

- 1.1.4 For the above movement of traffic CCL has not yet applied for formal 'Rail Transport Clearance' to the Railway. As per latest policy guidelines, Director, Transport Planning, Railway Board vide his letter No. 2001/TT-1/10/RTC/Review/14 dated 05.01.2015, 18.03.2015 and 27.03.2015 has advised that the practice of issuing Rail Transport Clearance (RTC) is discontinued herewith and there will be no requirement of RTC henceforth&Zonal Railway shall communicate necessary details regarding quantity &commodity wise OD flow. According to CCL, 4.50 MTPA of coal from the Amrapali OCP is linked to Barh Thermal Power Plant of NTPC. However, detail of OD flow for total 12.00 MTPA of coal traffic, which will be moved in future, is required to be submitted by the CCL to the East Central Railways
- 1.2 Concept of the study
- 1.2.1CGM/Civil, CCL vide his letter No. CGM(C)/IC/09/M&A/162-66 dated 21.03.2009 had requested RITES, Kolkata Project office to submit 'offer' for the work of conducting route alignment survey for construction of Magadh and Amrapali sidings and to submit Detailed Project Reports separately for each siding. The scope of works, as envisaged there in are: (i) Survey for final route alignment of the two sidings along with L-section and cross section, (ii) Preparation of detailed survey report, (iii) Obtaining competent approval of final route alignment from Railway authorities, and (iv) Submission of cost estimate for the construction and commissioning of the said siding as per Railway approved final route alignment.
- 1.2.2RITES, RPO, Kolkata vide its letter No. 12/P/Market/Vol-39/2009/2148 dated 27.04.2009 submitted an offer for undertaking the work envisaging the following 'scope of works' :-
 - (i) To identify the suitable Railway station on the proposed Tori-Shivpur-Hazaribagh line for planning of the Railway alignment to serve both the collieries;
 - (ii) Reconnaissance Survey of the area between the railway station and the coal blocks for route alignment survey with different alternatives for establishing the

Project Amrapali OCP M-A Area (CCL)

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most technically feasible and economically viable alignment;

- (iii) To identify the suitable location in the non-coal bearing area in association with the concerned officials of CCL for development of the loading terminal with most suitable alignment;
- (iv) Preparation of a discussion plan with a brief report, showing the alignment, junction arrangement at a suitable station on the proposed new line and layout of the loading terminal for obtaining approval including comments/suggestion, if any from CCL;
- (v) On receipt of the approval on the discussion plan preliminary engineering survey shall be carried out for the normal survey and the second states of the



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RITES

been approved as per draft DPR in scale preferably in 1 : 2500 for the approved alignments;

- (xvii) Preparation of all bridge drawings (GAD) of ROB & RUB if any on the proposed railway line, drawing for diversion/expansion of roads, major and minor bridges for inclusion in the Detailed Project Report;
- (xviii) Preparation of cost estimate, schedule of quantities for the required railway infrastructure to serve the proposed coal blocks;
- (xix) Preparation and submission of the Detailed Project Report to both CCL and Railways complying the observations given on draft Detailed Project Report.
- 1.2.3After some interaction with CCL, a revised offer was submitted by RITES vide letter No. 12/P/Market/Vol-39/2009/4503 dated 28.08.2009with the same scope of works but modifying the remuneration part. CCL negotiated further and, finally, a LOI was issued by CCL vide CGM(C)'s letter No. GM(C)/IC/09/M&A/789-95 dated 09.12.2009. A copy of this letter is shown as Annex-1.1.
- 1.2.4On receipt of the LOI, a reference was made to CGM (Civil), CCL vide RITES' letter No. 12/PCCL/Survey/Amrapali/09-10/359 dated 25.01.2010 asking details about (1) location of the takeoff point, (2) alignment of Tori-Shivpur-Hazaribagh line and (3) location of loading point and a meeting followed by site inspection was held on 28.01.2010. In the meeting, it was decided that the alignment plan of Tori – Shivpur-Hazaribagh section should have to be collected from the Dy. CE/CON(W), East Central Railway, Hazaribagh.
- 1.2.5But nothing can be made available from the office of Dy. CE/CON, ECR as the proposed alignment was not then finalized by Railway for want of approval from MoEF. Another meeting was held on 11.03.2010 between the officials of CCL and RITES to discuss the progress of survey regarding the Magadh & Amrapali OCPs and it was noted that RITES have to wait for the details till finalization of the plans which is being delayed for want of MoEF clearance for the proposed Tori-Shivpur alignment.
- 1.2.6Accordingly, based on the available information about the tentative layout of the proposed stations on up-coming Tori- Shivpur section, a Feasibility Study Report for the proposed rail infrastructure for Amrapali OCP was prepared by RITES and the same was submitted to both E.C. Railway and CCL vide letters No. RITES/RPO-KOL/AmrapaliSurvey/09/13/1895 & 1896 dated 18.03.2013 to obtain 'in-principle' approval from Railways. CGM (Civil)/IC, CCL vide his letter No. GM(IC)/M&A/2013/200 dated 04.05.2013 has offered some comments on the FSR requesting to hold a



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discussion with CPMDI in respect of proposed system of working under the SILO. A copy of this letter is shown as Annex-1.2.

- 1.2.7Meanwhile, CTPM, E.C. Railway, Hajipur vide his letter No. ECR/OPT/Pvt-Sdg/ACB/505 dated 11.06.2013 has communicated the 'In-principle' approval of the project subject to commissioning of Tori-Shivpur section and compliance of the following conditions:
 - 1% of project cost should be deposited in the name of FA & CAO/ECR;
 - (2) Since take off cannot be provided in mid-section, so CCL has to develop a crossing station with two holding line at the location of takeoff point.

A copy of the CTPM, E. C. Railway's letter is shown as Annex-1.3.

- 1.2.8On getting 'in-principle' approval of the FSR, a meeting was held in the chamber of CGM(P&P), CCL, Ranchi on 19.07.2013 in presence of the officials of CMPDI and RITES in which the observations made by Railway were examined. It was clarified in the meeting that provision of both the loading chutes of aSILO on the same track is not technically feasible when the train movement will be done by electric traction. As such, it hasbeen planned to provide the loading chutes of same SILO on the adjacent lines by which loading can be done on the adjacent line immediately after completion of loading on the other line but not simultaneously from both the chutes at a time due to limitation of storing capacity of the SILO. However, RITES were advised to process for preparation of the DPR for the Amrapali project.
- 1.2.9Subsequently, GM(Civil), CCL, Ranchi during the meeting held on 30.12.2013 has handed over soft copies of the SILO locations for both Amrapali & Magadh Projects and taking into consideration of these documents, a detailed survey was conducted around the area to establish the most feasible and suitable layout of the coal loading yard as well as the junction arrangement from a suitable point on the upcoming Tori-Shivpur section. It may be pointed out that Final Location Survey was started w.e.f. 30.08.2013 but the progress had been delayed for inclement weather and mainly due to strong resistance from Maoist group including local villagers on the plea of non-fulfillment of various demand placed to CCL by them. However, on completion of FLS, DPR for the proposed work was prepared and submitted to CCL as well as E. C. Railway vide RITES' letter No. RITES/RPO-KOL/Amrapali Survey/2013/2499 dated 01.05.2014 seeking approval from E. C. Railway.
- 1.2.10On examination of the above DPR, CTPM, E. C. Railway, Hajipur vide his letter No. ECR/OPT/Pvt.-Sdg./ACB/505 dated 28.07.2014 has advised to CE/CON/SE, E. C. Railway for finalization of the plans for the proposed sidings with an intimation to

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RITES for pursuing the issue. On the other hand Dy. COM/Planning, E. C. Railway, Hajipur vide his letter No. ECR/OPT/Pvt.-Sdg./ACB/505 dated 18.12.2014 has asked compliance on observations raised on the DPR by the concerned Department of Railway.

- 1.2.11It may be mentioned that RITES had to wait for a long period to collect the copy of final layout plans and L-section drawings for the proposed stations on Tori - Shivpur section which were under process of finalization by Construction wing of E. C. Railway. As advised by CAO/Con, E. C. Railway, a 'Power Point' presentation on both Amrapali and Magadh OCPs were made before the concerned officials in the CAO/CON's office at Mahendrughat, Patna on 22.08.2014 to appraise the detailed of the CCL's projects. After the presentation, it was advised that RITES should interact with Dy. CE/CON/W/Hazaribagh to obtain the copies of plans including L-section drawings for the concerned stations of the Tori - Shivpur sections stating that the same are at the ultimate stage of finalization. Lastly, after a number of follow ups, in a meeting held with Dy. CE/CON/W/Hazaribagh on 04.02.2015, it was understood that the plans for all the stations over the section have been finalized by him on 14.01.2015 and the same are under process of approval from the concerned departments of E. C. Railway. He was kind enough to supply the copies of plans and L- section drawing which were under process of approval.
- 1.2.12Accordingly, on the basis of the above drawings, a revised lay out plan for the proposed siding including junction arrangement at Manatu was prepared and in reference to Dy.COM/Planning's letter, quoted in para 1.2.10 above, necessary remarks along with the copy of the same plan were submitted to CTPM, E. C. Railway vide RITES' letter No. RITES/RPO-KOL/CCL/Amrapali Survey/2015/1106 dated 11.03.2015. Itemwise compliances, as were furnished are reiterated below:

ltem No		Observation / Compliances & Remarks
1	Observation	It has been observed by DEN (siding)/DHN that Railway land is involved in this project. Necessary modification in proposed ESP should be made for minimum involved in Railway land (only for connectivity)
	Compliance	A revised lay out plan of the siding has been prepared on the basis of finalized layout of Manatu station. It may be seen that the revised layout plan does not infringe any additional Railway land except for the take-off point and meeting point for the proposed siding at Manatu.
11	Observation	Yard plan of Manatu & Shivpur is yet not finalized. It should be noted during preparation of proposed ESP.
12.	Compliance	After the meeting held with Dy. CE/CON/W/Hazaribagh on 04.02.2015 arevised plan for the proposed siding has been

A. Operating:

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		developed on the basis of finalized plan forManatu and Shivpur.Manatu station has been proposed to be constructed in a grade of 1 in 1200 and the adjoining grade is 1 in 200 on both side except a small stretch of level from kms.35/100 to kms.35/250 where a girder bridge has been planned. Though, initially two loops are proposed along the alignment of future line No. 1 &3 with CAL 795.399 m and 895.400 m respectively for the junction arrangement of the proposed siding, ultimately, there will be no loop at Manatu after complete construction of Tripple line section.
m	Observation	Connectivity provision of other private siding is not permitted which is being contemplated inside the bulb as in this case. There should be separate exit and entry. It should not affect the movement of one siding.
	Compliance	CCL is developing two coal mines e.g., Amrapali&PanchraOpen Cast Projects at the same vicinity. Out of which Amrapali will be developed now and Panchra is their future project. Since, CCL is the owner of both the loading points, there may not be any objection on common lead line for the sidings connecting two separate loading points.However, commissioning of Pacnhra project is yet to be finalized by CCL, as such, the alignment under thePancharaproject has been deleted from the plan keeping the alignment of the loading bulb same, as has been incorporated in the DPR.
iv	Observation	DPR does not contain details of abstract cost of all the departments. Necessary modification and repercussion cannot be examined in absence of detailed estimates.
	Compliance	Details of estimated cost, department wise which are generally shown in a DPR are duly incorporated in the report. However, due to modification of plan, the entire estimate has to be revised and the same will be incorporated in the Revised DPR which is under preparation.
v	Observation	For Kathotia direction movement, fly over will require banking for loaded trains. For banking purpose suitable yard modeling is essential which should provide siding facilities for banker.
	Compliance	According to the revised alignment, the 'Rail-Under-Rail' line has been planned with a ruling grade of 1 in 180 (F)in empty direction and 1 in 200 (R) in the loaded direction and this gradient is matching with the ruling grade of the section Tori-Shivpur section which is under process of construction by Railway. Moreover this grade is permissible for double/multiple locos which have to be provided by Railway due to ruling grade of the adjoining sections.

B Signal & Telecommunication:

Item No	Observation / Compliances & Remarks		
1	Observation	Material procurement and executing agency to be fixed by the firm. However, the work will be done under supervision of Railway.	
	Compliance	Noted.	
0	Observation	For smooth operation and efficient maintenance of the Signaling and Telecom assets' provision for maintenance of newly created assets @ 10% per year of the estimated value of the S&T assets to be provided so that necessary infrastructure including man, material and mobility of staffs towards the maintenance of S&T assets may be arranged by Railway.	
	Compliance	Signalling work for proposed siding has been planned to be controlled from two separate panel cabins, one at the in-plant yard and the other at Manatu which has been planned to be converted	

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		as Block station. According to the DPR, the in-plant cabin will be operated and maintained by the siding owner solely at their cost. As regards to operation and maintenance of the newly created block cabin, the siding owner will pay a lump sum amount which would be equal to recurring cost towards maintenance & staff and employment for a period of 10 years on the basis of initial deployment of staff as per Para 4.4(iii) of FM Circular No. 1 of 2012. Apart from payment of lump sum amount, no additional cost is applicable. In this connection EDCE(G), Railway Board's letter No. 2012/CE-I/SP/1 dated 15.01.2015 which states that "it is clarified that no annual escalation of @ 10% shall be taken into account when the lump sum charges are being taken in advance for 10 years' period and it shall apply to maintenance cost and also for the cost of staff deployed at new stations, level crossings etc., as applicable to the private siding project", may kindly be perused.
m	Observation	Exact cost required for execution of S&T work will be ascertained only after finalization of Signaling plan. However, for the time being the estimated value (Rs10.83 crore) of the S&T assets given in the DPR may be considered for the assessment purpose and therefore10% of this cost i.e. Rs.1.08 crore to be provided per year for smooth maintenance of the S&T assets by the Railway.
	Compliance	Out of Rs.10.83 crores, Rs.5.94 crore is estimated for construction of the in-plant cabin which will be solely operated and maintained by the siding owner. It has been indicated under item No.1 on Signal and Telecom portion of Sr. DSTE (Co&Tele), Dhanbad'sletter No.ECR/OPT/Pvt.Sdg./Magadh/505 dated 05.01.2015, issued in connection with Magadh project that "Signal & Telecom department will maintain that portion of the yard which is maintained by Engineering department inside the railway boundary only". Since the in-plant cabin will be constructed outside Railway land, the relevant observation appears to be contradictory. Railway Board vide his letter, as quoted in the earlier paragraph has duly advised that no annual escalation of 10% shall be taken into account when the lump sum charges are being taken in advance for 10 years period.

C. Engineering:

Item No		Observation / Compliances & Remarks
1	Observation	A new block station has been proposed between Manatu and Shivpur at Km 36.873 with a gradient 1 in 200 which is sharper than the permissible limit (1 in 1200) for any yard i. e., Manatu Yard.
	Compliance	According to the plan under finalization by Railway, the Manatu (H) station is now proposed at kms.35/700. Accordingly, the junction arrangement at Manatu has been modified and the same has been shown in the enclosed plan.
IJ	Observation	The proposed siding will take off at Km 37.449 (at Ch.0) on Tori- Shivpur main line section between Manatu and Shivpur stations and cross the main line through rail fly over at Km 38.633 (at Ch.1274.564 from the takeoff point of the siding). As per index L- section plan, R.L of Km 38.633 and take points are Ch.505.770 m and Ch.501.367m respectively. Considering SOD for vertical clearance for fly over, girder depth and others, R.L. top of fly over may be taken as 1 in 100, which may be suitable only for movement of empty goods trains only and not for loaded one, which may be the future requirements.

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	Compliance	According to the revised plan the siding alignment will cross the main alignment as RUR (Rail Under Rail) and the level difference at the point of crossing has been proposed to 9.1 m. The ruling gradient of the RUR line is 1 in 180 (F) in empty direction and 1 in 200 (R) in loaded direction, where there will be no problem in movement of trains.
m	Observation	In addition to 'Y' connection, track length about 750m falls within the Railway land. As per Board's guideline, Railway will permit for the land required for 'Y' connection only. It is corrected before sending the DPR to HQ.
	Compliance	According to revised plan no additional Railway land except for the take-off point is involved for the 'Y' connection.
īv	Observation	One block section has been proposed in between Manatu-Shivpur stations at Km 36.873 from Tori station with provision of two additional lines to facilitate taking off the Amrapali siding from the block sections in Tori-Shivpur section. As construction of Tori-Shivpur line is going on under supervision of ECR, construction department. It is therefore advised that construction department may be approached for finalizing all drawings in final DPR.
	Compliance	The issue is regularly being pursued with the Officials of E. C. Railway, Construction Department both at Patna and Hazaribagh Town.Lastly, a meeting was held with Dy. CE/CON/W, Hazaribagh on 04.02.2015 in which it was understood that the Manatu station is proposed to be constructed at location 35/700 kms from CSB of Tori and the plans, asfinalized by the Construction wing at Hazaribagh are under process of approval by Railways. The plan for junction arrangement for the proposed plan of Manatu station.

D. Commercial:

ltem No	Observation / Compliances & Remarks		
1	Observation	In para No.5.2.1, it has been mentioned that five weighbridges would be provided at siding. But question of requirement of weighbridges to be decided first based on the projection/pattern of traffic.	
	Compliance	4 weighbridges have been proposed at the post loading zone on each and individual loading lines to facilitate weighment of rakes from any SILO/Chute. However, the 5 th weighbridge has been provided on the empty line as per request of CCL for weighment of empty rake, if necessary. The alignment does not permit any other location to provide a single weighbridge connecting all the 4 lines with due compliances of the norms as stipulated by RDSO.	

E. Electrical (TRS):

Item No	Observation / Compliances & Remarks		
	Observation	System of working as detailed at section 1.8.2 and 4.7 with electric loco is not suitable Electric loco equipment/ducts at roof are similar to coal duct which may come similar SILO when the loco passes underneath. Instead electric loco can push the load from rear for loading under SILO. Once loading is complete the same loco can get detached at the front and work the train conniving that trailing load will match the hauling capacity of locomotive. RITES may be credibly advised for change.	
	Compliance	The design of chute under the SILO should always be either swing type or telescopic and during in-operative condition when the	

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	credibly advised for change.
Compliance	The design of chute under the SILO should always be either swing type or telescopic and during in-operative condition when the loading is stopped, the gadgets will be high above the equipment of locomotive. As such there will be no chance to contact the SILO chute with electric locomotive while passing underneath the SILO. Moreover, the system of working which has been detailed in the above paragraph is under consideration of CIL. In view of running of coal trains by electric locomotive through unidirectional movement completely avoiding shunting operations for attachment / detachment / reversal of train engine. The proposed system has already been accepted by SER & SECR while approving DPR for their concerned projects.

F. Electrical (General):

ltem No		Observation / Compliances & Remarks
I	Observation	Suitable no. of posts for operation and maintenance and assets created has to be created in advance as per existing norm.
	Compliance	Electrical (G) assets inside the in-plant yard of the siding will be maintained by the Siding owner. In regard to the new block cabin, as clarified in para 2 (ii) against the observation of S&T department, the cost towards maintenance, staff and employment for a period of 10 years is payable by the siding owner before commissioning of the siding. It is the Railway to decide creation of posts etc. in consideration to other allied works.

G. Electrical (TRD):

ltem No		Observation / Compliances & Remarks
i	Observation	Tori-Shivpur section has sanction for electrification of the stretch between Tori-Shivpur-Hazaribag section but Shivpur-Hazaribag section electrification work sanction not received so far. So power supply arrangement is required.
	Compliance	Noted. Proportionate cost for power supply arrangement may be shared by the Siding owner depending upon the materialization of the section involved.
11	Observation	Following maintenance schedule to be incorporated i) 08 wheeler T/W for maintenance of OHE section. ii) Training facilities in Danapur Division.
	Compliance	Noted. This concern to Railway.

H. Mechanical - (1)[Observation of Dy. CME(Opn), E. C. Railway, Hajipur]

Item No		Observation / Compliance
1	Observation	It is not clear in the DPR from which yard the intensively examined rakes will be supplied to meet their above requirement. The infrastructure of that yard has to be looked into for further strengthen.
	Compliance	According to linkage of coal, primarily, 4.50 MTPA of coal traffic from Amrapali block has been linked to NTPC's Barh Thermal Power Plant which is under installation near Barh station on Kiul- Patna section of East Central Railway. After construction of Tori - Shivpur - Hazaribagh/Kathuatia - Koderma new line section, coal for the Barh TPP shall have to move either via Shivpur - Tori - Barkakana - Chandrapura - Dhanbad - Kulti - Sitarampur Link - Kiul - Barh or via Shivpur - Kathuatia - Koderma - Dhanbad - Kulti Link -

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		Sitarampur Link - Kiul - Barh section according to existing traffic facilities for forward movement available en-route, incidentally, both the routes are almost equidistant and roughly about 550 kms. In view of the projected traffic, Railway may decide formation of suitable C&W examination point for intensive examination of the rakes.
2	Observation	Weighbridges: Vide para 1.4.1 (ii) of the DPR, 05 nos. weighbridges has been proposed. Capacity, installation and commissioning of the weighbridges should be as per Railway Board's Guidelines issued vide letter No.98/Dev. Cell/IDE/21 dated 07.04.1999 and RDSO's letter No. MW/CS/PE/WB dated 22.04.2010. A minimum 100 m clear straight leveled track should be available in either side of the weighbridge. There should be no point of crossing up to a distance of 100 m on either side of weigh rail.
	Compliance	Noted. This has been complied with.
3	Observation	The siding owner shall take proper care of all wagons during loading / unloading. Siding owner shall liable to pay repair charges (Material cost, Labour cost & other incidental charges as applicable) for the wagons damaged during loading.
	Compliance	Noted for compliance
4	Observation	The siding owner shall take proper care of all wagons in his custody and to protect theft / pilferage of wagon components in the siding premises. Siding owner shall be liable to pay the charges for loss of wagon components due to theft / pilferage at the siding.
	Compliance	Noted for compliance.
5	Observation	Proper RCC pathways in the outgoing lines of the yard are to be provided for carrying out GDR check in the private siding. Pathways will help both the Crew and Guard of the train as well as the C&W to work smoothly whenever they will be called for attending trouble shooting.
	Compliance	Noted. Facilities for pathways along the Post-loading lines will be included in the revised DPR.
6	Observation	The siding owner shall inform about all derailments / accidents occurred within his siding premises. In case of accident / derailment of locomotive and rolling stock on account of siding authority, the cost of damage to locomotive and rolling stock and the re-railment charges including ART train & staff charges along with damage wagon cost shall be borne by the siding owner.
	Compliance	Noted for compliance.

I. Mechanical- (2) [Observation of Sr. DME (C&W), E. C. Railway, Dhanbad

SI No

Observation / Compliance

	Compliance	Noted.
4	Observation	Necessary arrangement may be developed so that loading work will be done cautiously to avoid damage to the rolling stock by the loading equipment.
	Compliance	Noted
5	Observation	As no C&W facilities have been proposed in the DPR, the rake should be inspected by Crew & Guard before start of loaded rake as per latest guidelines.
~	Compliance	Concerned to Railways.
6	Observation	The Railway will have the right to undertake inspection and cross checking of the loading equipment / SILO which will be installed to verify the status of their loading.
	Compliance	Noted.

1.2.13 In reference to the points raised as regard to the proposed system of working with electric locomotive by the Sr. DEE (TRD), E. C. Railway, Dhanbad vide his letter No. ELD/367/ Siding/DPR/RITES(Amrapali) dated 21.07.2014 and the Dy. CEE(W), E. C. Railway's vide his Note No. ECR/ELE/PLG/DPR/1395 dated 04.06.2014, it was clarified that the DPR (April 2014) was formulated on the basis of accepted concept of FSR and the layout of the coal loading yard has been planned with provision of bulb to facilitate all through unidirectional movement of trains during reception & despatch and also during loading under the SILO chute by means of electric locomotive. Though the proposed system of working of trains under the SILO by means of Electric locomotive including design under the SILO, have been incorporated in the report, it has been also mentioned that the proposed system is still under finalization of CIL and in any case, the system of working as proposed, for movement of trains as well for loading by electric locomotive has not been finally materialized, the Siding authority has to provide suitable hauling arrangement to pass the non-OHE zone for forward movement the rake with the help of 'Diesel Engine' or 'Side Arm Charger' or any suitable device.

- 1.2.14 Finally, on examination of the above compliances, CFTM, E. C. Railway, Hajipur vide his letter No. ECR/OPT/Pvt.Sdg./ACB/505 dated 23.03.2015 has conveyed approval of the DPR subject to some other conditions with further advise to submit a revised DPR incorporating the compliances of all the observation. A copy of this letter is shown as Annex-1.4.
- 1.2.15 Accordingly, the present "Revised Detailed Project Report" has been formulated with following item wise compliances of the observation, as sought for by CFTM, E. C. Railway while communicating the approval of the DPR (April 2014):

ltem No.	Observations / Remarks & Compliances		
1.	Observation	Difference of 2% of project cost, if any should be deposited in the name of FA & CAO / ECR.	
		Project Officer Amrapali OCP M-A Area (CCL)	

1	Compliance	An Gan and An Gan an
2		cost of Rs.30937.97 lakh (as per DPR), CCL has duly deposited an amount of Rs.618.76 lakh in two installments, i.e. Rs.298.81 lakh as 1% of codal charges on 05.04.2013 vide Cheque No.170079 dated 30.03.2013 and Rs.319.95 lakh as balance amount of 2% of codal charges on 18.11.2014 vide Cheque No.755370 dated 40.41 charges on
-	. Observation	If further, any remarks on compliance / proposed DPR which were left out during scrutinization of the DPR should be included in the Revised DPR which will be communicated to you soon.
	Compliance	
3	. Observation	
	Compliance	
4		for more than 750 m.
	00001141011	be provided.
5.	Compliance	Complied with.
5.	e e e e e e e e e e e e e e e e e e e	
	Compliance	Director, Transport Planning, Railway Board vide his letter No. 2001/TT-1/10/RTC/Review/14 dated 05.01.2015, 18.03.2015 and 27.03.2015 has advised that the practice of issuing Rail Transport Clearance (RTC) is discontinued and there will be no requirement of RTC henceforth. Zonal Railway shall communicate necessary details regarding quantity & Commodity wise OD flow. According to CCL, 4.50 MTPA of coal from the Amrapali OCP is linked to Barh TPP of NTPC. However, detail of OD flow for total 12.00 MTPA coal traffic, which will be moved in future, is required to be submitted by
6.	Observation	the CCL to the East Central Railways. At any circumstances freight rebate will not be provided.
	Compliance	Noted.
7.	Observation	Cost of necessary yard modification, Signalling modification, OHE modification should be borne by party.
	Compliance	Noted.
8.	Observation	Unloading platform preferably of 30 mtr. Width to be provided. The design of unloading platform should be such as to avoid any damage to Railway wagon at time of unloading.
	Compliance	The proposed siding would deal with only outward traffic of coal which will be loaded through RLS by means of SILO loading arrangement. As desired by, CCL, one unloading line has been provided to deal with inward consignment, if any, and for this purpose one platform is proposed with 650 m x 30 m. However, this unloading line accompanying the platform may not be required at all.
9.	Observation	The entire cost of project has to be borne by the Siding holder including modification proposed at the station yard. The Railway shall not bear any cost at any circumstances what so over.
	Compliance	Noted. Obviously, the cost of construction of siding facilities will be borne by the siding holder.
0.		Incremental cost project will be part of estimate.
	all months in the second secon	The cost of the project has been revised as per up dated cost
		and detailed are incorporated in the DPR.



11.	Observation	The siding holder has to be abiding by the Railway terms and condition according to extent rule of Railway regarding staff cost, maintenance charge of Track, OHE, Signalling etc. as applicable from time to time.
	Compliance	Noted.
12.	Observation	Railway reserve the right to Incorporate any kind of change if felt necessary in view of operations, track laying, signalling arrangement etc which will be binding on the siding holder.
	Compliance	Noted
13.	Observation	Siding will be guided by new liberalization of siding policy of Railway and correction slip / circular / amendment issued by Railway time to time in this regard.
	Compliance	Noted
14.	Observation	ESP and land license plan of take off point should be approved by Railway.
	Compliance	Noted.

Sr. DEE/TRD/E. C. Railway/Dhanbad vide his letter No.ELD/367/Siding/DPR/RITES (Amrapali) dated 21.07.2014 has also raised some comments, compliances / remarks against each of the items are submitted below in seriatim:

A. General:

Item No.		Observations / Remarks & Compliances
1.	Observation	Proposed siding falls under the new BG line section TORI- Shivpur-Hazaribagh for which route alignment not finalised by CAO/CON for want of approval from MoEF.
	Compliance	It is understood that approval for construction of Tori-Shivpur line has already been received.
2.	Observation	CTPM/ECR/HJP vide letter ECR/OPT/Pvt-Sdg/ACB/505 dated 11.06.2013 has granted, approval on proposed rail infrastructure for Amrapali coal block subject to commissioning of TORI-Shivpur new Line section.
	Compliance	No comment
3.	Observation	Bearing capacity of the Soil is determined at the outer toe of the bottom foundation at a representative number of locations. This should be get test before starting foundation.
	Compliance	Noted
4.	Observation	Before execution of work, OHE layout plan, location plan of SSP including general arrangement and layout plans for fencing, foundation, structure assembly, cable run, bus bar etc. should be got approved from Railway authority. All work should be based on latest RDSO/CORE standard design drawing and guideline issued by Railway. Location of SSP within station of new proposed crossing station will be preferred by Railway.
	Compliance	Noted. Location of switching post will be finalised with approval of Railway.
5.	Observation	approval of Railway. Conventional OHE (107 sq.mm HDGC Contact wire & 65 sq.mm Copper catenary wire) has been proposed. Feeder line should be of 150 sq.mm copper feeder and jumpers should be 160 sq.mm as per RDSO guideline.

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	Compliance	Provision of 150 sq.mm feeder with 160 sq.mm jumper made in the estimate.
6.	Observation	The Track center of 6.00 meters (minimum) shall be adopted. No mast should be proposed for erection in between two tracks.
	Compliance	No comment.
7.	Observation	The implantation of main siding line mast shall be 2.80 meters. Mast implantation of 3.10 meters should be adopted for portal with BWA and 3.00 meters for portal mast. Extra allowance for mast to be considered according to norms of ACTM in case of curvature.
	Compliance	Noted.
8.	Observation	Long creepage (1050 CD) composite insulator (Stay, Bracket & 9 Ton) should be provided int he proposed section. Power supply arrangement will be decided later on after finalisation of electrification of Tori-Shivpur-Hazaribagh new BG line section.
	Compliance	Provision made accordingly. Noted
9.	Observation	Except critical location, 'B' type mast should be used. Anchoring arrangement to be done by providing Dwarf mast with guy rod. Selection of the type & size of foundation is done from volume chart on the basis of FBM code.
		non volune on the back of the back
	Compliance	Noted.
10.	Compliance Observation	

B. Other Comments:

Item No.		Observations / Remarks & Compliances
(i)	Observation	Bonding & Earthing arrangement confirming to Bonding & earthing code ETI/OHE/71 (11/90) should be done. In station area M.S. Flat for bonding shall be used. At the SSP location typical earthing, station at switching post as per RDSO Drg.No.TIDRG/PSI/E.STN/00001/13/0 Sheet -1 to 4 should be provided. Details are available in RDSO's SMI No.TI/SMI/0031.
	Compliance	Noted.
(ii)	Observation	Continuous protective screen on the FOB/ROB or over line structure should be provided as per RDSO guideline & drawing, if any
	Compliance	Noted.
(iii)	Observation	Location of SSP should be finalised jointly and plan should be got approved from Railway.
	Compliance	Noted.
(iv)	Observation	Interrupters proposed to be provided for tapping from existing main line should be provided with D.P. isolator for BS and by pass isolator (SBM) switch each for maintenance purpose.
	Compliance	Noted. Provision made accordingly.
(v)	Observation	Necessary charges for hooking with SCADA for SSP with proposed RCC/HZME, should be borne by the siding authority. Similarly modification in RTU and hooking with

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		SCADA should also borne by siding owner
	Compliance	Noted. Provision made accordingly.
(vi)		
	Compliance	Noted. Provision made accordingly.
(vii)	Observation	Insulated catenary wire should be provided under the over line structure, if any, and safe clearance should be maintained as per guide line.
	Compliance	Necessary provision made accordingly.
(viii) Observation	Modification of HT/LT crossing lines, if any, through underground cable, if any should be done by the siding owner for which plan, drawing etc. should be got approved from Railway.
	Compliance	Noted.
(ix)	Observation	No structure/equipments should be allowed having clearance less than 2. 0 meters.
	Compliance	Noted
(x)	Observation	All safety precautions & guide lines of ASCTM must be followed during electrification of siding.
	Compliance	Noted.
(xi)	Observation	Power & Traffic block, if required, may be charged separately according to prevailing norms of Railway / Division.
	Compliance	Token provision made in the estimate.
(xii)	Observation	Modified SWR of TRD (Appendix-G) should be prepared by siding owner and got approved from Railway for new proposed crossing station.
	Compliance	Noted.
(xiii)	Observation	At the level crossing gate, if any should be provided with earthing arrangement with separate earth pit.
	Compliance	Noted.
(xiv)	Observation	Necessary Tools & plants and machinery & tools required for maintenance should be provided as will be preferred by Railway. This list of these items will be intimated before starting of work.
	Compliance	Noted. Provision made as per norm.
(xv)	Observation	OHE spared for maintenance of OHE not considered in the estimate. The same should be included as 3% of OHE cost. General charges, supervision charges & contingencies have not been considered in the estimate for electrical works. Provision of these should be made in the estimate
	Compliance	Necessary provision available. Provision under Departmental charge available. No provision for contingency over & above Departmental charge has been made in terms of FMPC No.1 dated 30.01.2012.
(xvi)	Observation	Detailed design of OHE near SILO should be got approved by Railway before execution.
	Compliance	Noted.

C. Another Comments:

No.		Observations / Remarks & Compliances
(i)	Observation	One commercial vehicle should be provided in the estimate for
		maintenance organisation of TRD against asset created as

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		Compliance	the maintenance depot at both ends is far away from proposed siding. Necessary provision made.			
	(#)	Observation				
		Compliance	Separate provision for operation of vehicle for movement of Railway officials up to commissioning has been made.			
	(111)	Observation	One set of computer and heavy duty printer should be made available to Sr. DEE/TRD/Dhanbad office for official work related with the siding electrification & commissioning.			
		Compliance	Necessary provision made.			
	(iv)	Observation	One insulator testing machine for testing of insulator should be provided at OHE dept for testing of insulators before erection in the siding as construction facilities. One Thermal imaging Camera should also be provided in the estimate for supply to Railway for hot spot detection during execution as well as for maintenance.			
		Compliance	Necessary provision made.			
	(v)	Observation	Provision of new modified schematic sectioning diagram at station, cabins and RCC control room, Depot, Tower Wagon after electrification of said siding should be made in the estimate for OHE and at new proposed SSP.			
		Compliance	Necessary provision made.			
	(vi)	Observation	Provision of furniture for one OHE depot should be made in the estimate to augment OHE depot for maintenance of newly created OHE in the siding.			
		Compliance	Prorata provision made in the estimate.			
	(vii)	Observation	Provision of fund should be made by siding authorities for maintenance of TRD assets. This should be ensured in Agreement with Siding Authorities.			
		Compliance	In terms of liberalised rules for siding, assets created under electrification of siding are to be maintained by Railway. No fund will be provided by Siding Owner.			

1.2 Proposed Rail route and pattern of movement

- 1.3.1 Amrapali coal block of CCL is situated at Chandawa district of Jharkhand and at present there is no rail head nearby. Two new rail link projects, e.g. (i) Koderma - Hazaribagh -Barkakana - Ranchi (189 kms.) and (ii) Hazaribagh/Kathuatia - Shivpur - Tori (162.30 kms.) are under process of construction. While Railway has directly undertaken the construction of the Koderma - Hazaribagh - Barkakana - Ranchi section as Railway project, the section Hazaribagh/Kathuatia - Shivpur - Tori is likely to be constructed by Railways on 'deposit terms' at the cost of CCL.
- 1.3.1 The construction of the Railway line has not been materialized so far due to delay in



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Ministry has turned down the proposed alignment of Shivpur - Hazaribagh section for and Tori is shown in Figure-I below: Shivpur will join at Kathautia station (situated at 49.50 kms. from Koderma) instead of which a revised alignment is under consideration. The alignment, so chosen, from 20.02.2015. Although, MoEF has cleared the proposed Tort-Shivpur section, the connecting at Hazanbagh. The proposed alignment of the new lines between Koderma





1.3.2 41.40 kms. long Tori - Shivpur line is under process of construction by East Central proposed for the Railway stations on the upcoming Tori and Shivpursection are in Jharkhand. According to revised plan of the section, the location and facilities, as tabulated in Table II below:regular coal supply from the coal blocks of North Karanpura to the thermal power plants Railway on 'deposit terms' at the cost of CIL. This rail link is expected to ensure a

SI.	Name of the	Туре	Facilities planned
NO.	Stations		
-	Tori	Block station	Existing
	Distal!	Block station	4 lines & 2 platforms
N	Diraton	DIOCK ORDER	
ŝ	Kusmahi	Block station	4 lines & 2 plauornis
	Dalumath	Block station	4 lines & 2 platforms
÷	Daiuman		A lines & 2 nlatforms
Ċ,	Bukru	BIOCK STATION	
a	Phulhasia	Block station	4 lines & 2 plauornis
		Lialt station	1 platform
7	Manatu	Halt station	- picacini
2	Shivpur	Block station	4 lines & 2 plauoinis

1.3.3 Apart from the above CPSU projects, many big projects of various private sectors like



ясчасо остацер индыест ясират гоя индукации от или імгилатицатине гоя индирасо амядиаці соац яцоск ог семталь соаслісов цімітер ПАЛЕС

Kathuatia station on Hazaribagh - Koderma section instead of Hazaribagh via raised by MOEF. Due to non-clearance of forest land by MoEF, E.C. Railway has decided to divert the alignment following a new route from Shivpur to connect & Steel Limited are also suffering due to land acquisition problem and for objections Jindal Steel & Power Limited, Arcelor Mittal, Rungta Mines Limited and Bhusan Power

- via the route Shivpur Kathuatia- Koderma Gaya Patna Barh, though shorter in ength may not be possible due to several operating constraints like reversal of train almost equidistant and roughly about 550 kms. It may be mentioned that movement according to existing traffic facilities available en-route. Incidentally, both the routes are coal for the Barh TPP, from Amrapali loading yard, may move either via Shivpur - Tori - Barkakana - Chandrapura - Dhanbad - Kulti - Sitarampur Link - Kiul - Barh or via Shivpur - Kathuatia - Koderma - Dhanbad - Kulti Link - Sitarampur Link - Kiul - Barh 1.3.4 After construction of Tori - Shivpur - Hazaribagh/Kathuatia - Koderma new line section, engine and brake van at Gaya and Patna.
- A Schematic Layout Plan showing the junction arrangements and Layout Plan for the proposed siding is shown as Annex-1.5. 1.3.5

Junction arrangement 1.4

- from & to Koderma direction, if required, when the Amrapali OCP will achieve its full capacity and CCL's another project, Panchra OCP in the same vicinity will commence towards the direction of Tori station. However, a tentative alignment connecting Shivpur station has also been shown as future plan for movement of trains directly However, E.C. Railways have furnished the tentative layout of the stations proposed to be constructed on the section Tori - Shivpur. Based on the layout plans received from E.C. Railways, the junction arrangement for the Amrapali coal loading has been planned in such a way that trains to and from the loading yard can move directly The alignment of Hazaribagh/Kathuatia - Shivpur section and the yard diagrams for the stations en-route in Shivpur - Tori section is at the stage of final approval by Railways. its production. 1.4.1
- kms.36/873 from CSB of Toriwas planned initially to takeoff the proposed siding and the DPR was submitted based on the idea that the proposed siding would take off by approval of the project,a new block station between Manatu and Shivpur at As advised by CTPM, E.C. Railway, Hajipur while communicating 'In-principle' 1.4.2

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Hroject Officer M-Area (CCL) Amrapali OCP

REVISED DETAILED PROJECT REPORT FOR PROVISION OF BAIL INFRASTRUCTURE FOR PROPOSED AMRAPALI COAL BLOCK OF CENTRAL COALFIELDS LIMITED construction of a new block station at a suitable location in between Manatu and RITES

- 1.4.3 Meanwhile, on the way of finalization, the layout plans for the proposed stations on the upcoming Tori - Shivpur section were revised by Railway and consequently, the junction arrangement plan for the proposed siding had to be revised due to change of location of Manatu station. The proposed Amrapali OCP siding will now take off from Manatu station which will be converted to a 'Block' station instead of 'Halt' station. Since, the Manatu Halt is scheduled to be located in a grade of 1 in 1200 bounded by 1 in 200 gradesand one major bridge on either side within a short span; it is not technically feasible to provide additional loops with adequate length even after regradation of a small portionat Shivpur end of Manatu. As per suggested modification, both the outside lines of the proposed 3rd lines section will be constructed as common loop lines of Manatu station and with the commissioning of triple line section, these loop lines will be extended as main lines.
- 1.4.4 For direct movement of trains for the colliery siding two separate connections have been proposed, one as empty line which will take off from the main line at Ch.658.10 m from CSB of Manatu and the loaded line which will meet on the main line at Ch.611.10 m from CSB of the same station. However for movement of trains to &from Kathuatia/Koderma direction, atentative alignment has also been shown (in green colour) as future connection. The alignment for Pachra coalmines which is a future project of CCL in the same vicinitybut is not within the purview of this report has not been shown. The requirement of store siding which appears to be needless but has been shown as per advice of CCL may be finally decided by CCL to delete the provision.

Layout of the coal loading yard 1.5

- Provision of Rapid Loading System and despatch facilities has been made for transportation of coal through Rail. Although, the OCP will despatch 4.50 MTPA of coal 1.5.1 initially, considering the final outage programme of 12.00 MTPA, two nos. of SILOs having storage capacity of 4000 TPH and with 2 loading chutes each, as has been desired by CCL has been shown in the plan.
- The layout of the loading terminal will be in the form of bulb to facilitate unidirectional movement avoiding coal bearing area. After taking off, the alignment will traverse 1.5.2 almost parallel to the Manatu-Shivpur section, under construction, and will cross this



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pre and post loading yard has been planned accordingly. The facilities, as planned, are line through a rail under pass at kms.39/0195 from Tori. At the loading yard, as advised by CCL, each SILO will be provided with 2 loading chutes and the design of Ξ

- 4 pre loading lines of CAL 796.80 m, 797.25 m, 798.216 m and 797.57 m;
 - 4 post loading lines of CAL 763.20 m, 761.03 m, 757.73 m and 765.00 m; (1)
- 5 weighbridges, 1 for weighment of empty rakes and 4 for weighment of loaded (11)
- One Store siding, as sought by CCL, for 750 m along with a platform of 650 m x30 m. (iv)
- Amrapali and Pachra OCPs, the tentative junction arrangement towards Shivpur end about Pachra project, as such; the layout of loading yard for the Pachra project has notbeen shown. However, keeping in view the future loading programme of both indicated the tentative SILO locations of both the projects. CCL is now quite silent vicinity of Amrapali mines, with targeted peak capacity of 20.0 MTPA and had 1.5.3 CCL has earlier intimated that they have also developing Pachra OCP within the has been shown in the plan in 'green' colour.
- 1.5.4 The Civil Engineering Plan and L. Section showing the takeoff point, junction arrangements and loading terminal is placed at Annex-1.6 [7 sheets].
- Signal Engineering & Telecommunication 1.6
- movement of trains to &from the siding with 'Double Line Block Instrument'on 'Absolute Block System', the In-plant yard cabin shall controlthe loading operation cabin at the Manatu station, in addition to main line movements, shall control the 1.6.1 Two Panel cabins are proposed for controlling the movement of trains between the upcomingManatu block station and the Amrapali loading terminal.While the Panel including movement over the bulb through continuous track circuiting.
- another Junction Panel cabin will require to be constructed near the junction point of 1.6.2 In future, when the movement of trains towards Shivpur direction will be materialized,

1.6.3 Details of Signalling & Telecommunication arrangements have been elaborated in both the directions.

- Chapter-III of the Report.
 - - Electrification 1.7

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אבעיוובם טבזאורבס המסענבז אנייסווד רמא המסעוווטא מר וואור וייראאוזייטוווי רסא האמסיסובם אאואראבו כמאנ מרמכג מר מנאזאע מחאור וייראאוזייטוווינ לאודבס

electric locomotive and the details of electrification are elaborated in the respective SILOs shall be provided with 25 KV AC traction for operation of trains by Raitway including the entire loading yard except a small portion under the loading chutes of the 1.7.1 The entire railway infrastructure planned for working right from the takeoff point

- System of working 1.8
- An empty rake meant for loading under the SILO has to be received on any of the preloading line after negotiating the bulb. 1.8.1
- zone with a gap of 6.5 m under the SILO. Following precautions have to be observed locomotive working the train. The portion of chute under SILO shall have an unwired Movement of train and loading through SILO will be done by Railway electric -: during loading:-1.8.2
- (a) The train will move towards the SILO with the rear pantograph as a customary system.
- will be provided keeping the 'without OHE zone' in between front and rear (b) The engine, as soon as crosses the SILO will stop at a point where a 'stop board' pantograph.
- (c) After stopping, the front pantograph will be raised and the rear pantograph will be
- (d) There after the train will start at a pre controlled speed to commence loading lowered keeping the engine continuously energized.
- (e) A rake after loading under SILO will be received on the corresponding post loading through SILO.

line.

- CCL should initiate steps for finalization of the design of SILO matching with the has to keep provision of 'wagon positioner' / 'Side arm charger'for transferring the electric locomotive under the unwired portion of the SILO. However, it is advisable that 1.8.3 The design of SILO and loading by the electric locomotive is still under finalization. CCL minimum achievable speed of electric locomotive.
- Installation ofin motion Weigh Bridges 1.9
- bridges have been provided immediately after loading SILOs for weighment of loaded in-built weighing system provided with loading SILOs, four 120 ton in-motion weigh Though the quantity of coal loaded in the individual wagon shall be available from the 1.9.1

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wagons. Another weigh bridge has been provided before the entry point of pre-loading lines m for weighment of empty rakes, if necessary, during admission on the preloading lines.

1.10 **Commercial formalities**

1.10.1 The commercial formalities for working of TMS including manning of the weighbridge shall be decided after interaction with the Commercial Department of Dhanbad Division and East Central Railway. Since the siding will be worked on 'Engine On Load' concept, the cost of Railway staff deputed for the siding shall be borne by the Railways as per existing policy guidelines issued under FM circular No. 1 of 2012.

Abstract Cost Estimate of Rail Infrastructure 1.11

1.11.1 The entire work has been planned to be under taken matching with the loading programme of CCL. Detailed cost for construction of the siding, department wise, as calculated on the basis of approximate length and present day cost of man and materials, is tabulated below : [Rs. In Lakh]

	Within Rly	Outside	Total
Department	area	Rly area	00.051.12
Department	1,936.83	31,014.29	32,951.12 1,517.32
Civil Engineering		792.60	
Signal Engineering & Telecomment	806.32		
Electrical Engineering	3,467.87	34,021.66	011
Total :			

RITES

1.12.1 On approval of the project by Railways, as per MOU signed between CIL and RITES, the construction works will be done by RITES. However, it is desirable that the construction works including S&T and Electrical (TRD) within Railway premises, i.e., at Manatu stationwhich requires better co-ordinations amongst the various departments of Railways, may be undertaken by East Central Railways on 'deposit terms' for quicker execution.

Project Officer Amrapan (CCL) CHAPTER - II

Civil Engineering

RRITES

Preface. 2.0

towards Shivpur Station end. Centre Line of Manatu Halt Station is fixed at Km.35/700.00 in Tori - Shivpur section, which is under process of construction by East Railways Ch.36/358.10 km., which is 658.10 m away from CSB of Manatu Halt Station SILO arrangement. The siding line is proposed to take off from common main lineat the said Open Cast Project by introduction of 'Rapid Loading System' (RLS) through 2.0.1 Central Coalfields Limited (CCL) has planned for construction of Amrapali Raitway Siding at their Command Area to despatch coal to different linked power plants from Central Railway.

- The present 'Revised Detailed Project Report' deals with the provision of following facilities:-2.0.2
- (i)4 nos. full rake capacity pre loading lines such as, L-1 of CAL 796.80 m (FM to SILO-2), L-2 of CAL 797.25 m (FM to SILO-2), L-3 of CAL 798.216 m (FM to SILO-1) & L-4 of CAL 797.57 m (FM to SILO-1) respectively;
- WB), L-2 of CAL 761.03 m (D/S to WB), L-3 of CAL 757.73 m (D/S to WB) & L-4 of (ii)4 nos. full rake capacity Post loading lines such as, L-1 of CAL 763.20 m (D/S to CAL 765.00 m (D/S to WB) respectively;
- at Ch.13650.683 m of L-1 & Ch.852.25 m of L-2) for facilitating Rapid Loading (iii) 2 nos. of SILO (SILO-1 at Ch.1102.716 m of L-3 & Ch.852.57 m of L-4 and SILO-2
- 2, at Ch.1126.47 m of L-3 & at Ch.876.01 m of L-4 respectively for weighment of on the 4 nos. of post-loading lines at Ch.13699.458 m of L-1, at Ch.901.00 m of L-(iv)5 nos. of 120 T In-Motion Electronic Weighbridges, (1 no. to be installed at Ch.12284.185 m for weighment of incoming empty rakes and 4 nos. to be installed System through SILO loading arrangement,
- (v) One Store siding introduced as L-5 of CAL of 750 m (D/S to SRJ) with one Platform outgoing loaded rakes;
 - of size 650 m x 30.00 m.

Survey Methodology. 2.1

- proposed Amrapali Railway Siding of CCL at proposed Tori-Shivpur section with the suitably feasible techno-economical alignment for planning and accommodating of the 2.1.1 Reconnaissance survey has been conducted through the corridor to find out the most
- 2.1.2On getting 'in-principle' approval of the FSR, submitted in March 2013, the DPR was provisions of above mentioned features as described under paragraph 2.0.2.

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Amrapali OCP Amrapali OCD M-Area (CCL)

submitted to both E. C. Railway & CCL on 02.05.2014 in compliances of all the plan prepared on the basis of finalized plans for the upcoming Tori -Shivpur compliances of the observations raised by theconcerned departments of Railway. vide letter no. ECR/OPT/Pvt. Sdg./ACB/505, dated 18.12.2015 has advised RITES for observations. Dy. COM/Planning, E. C. Railway, Hazipur, on examination of the DPR section. Considering the above submission, CTPM, E. C. Railway, Hajipur has communicated approval of the DPR vide letter no. ECR/OPT/Pvt. Sdg./ACB/505, dated Accordingly, RITES had furnished item wise compliancesalong with a revised layout 23.03.2015 advising to submit revised DPR with due incorporation of the observations. Accordingly, the present report has been formulated.

- 2.1.3Considering above, the final location survey has been carried out with the help of précised and latest survey instruments like Total Station & GPS Instrument, Digital field. Necessary controlling points have been established in the field by means of level etc. by adopting modern survey methodology to lay out the final alignment in the development. alignment to identify the availability of suitable open space for further required software to arrive at the latest existing features of the area / corridor along the selected concrete pillars. Survey data was downloaded in AUTO CAD format and other survey
- 2.1.4Engineering plan along with L/section has been prepared with AUTOCAD and modem survey software. Spot levels have been taken at suitable intervals. The proposed suitable alignment along with other facilities has been incorporated in the layout plan.
- 2.1.5Horizontal control points have been fixed over the selected corridor / alignment in respect to fixed reference points and a close traverse was run along the corridor. Vertical the mother Bench Mark by using "AUTO LEVEL". control points have been fixed at suitable locations and the levels are connected with

2.2 Engineering Parameter.

- 2.2.1 Gauge: The gauge adopted is 1676 mm (5'6") Broad Gauge to commensurate with the gauge of the serving Railway system.
- 2.2.2 Fixed Point: The siding line is proposed to take off from common main line at engineering survey and reckoned as "ZERO" chainage for calculation of onward towards Shivpur Station end This point has been considered as fixed point for the Railways Ch.36/358.10 km, which is 658.10m from CSB of Manatu Halt Station



רסת התכובסבבים אאתאהאנו כבאר חנסבע סר כבאדמאר מטאנהוטס ואוונטעוונ אותאהאנו באנענגע חנסבע סר כבאדמאר מטאנהוטס ואוונטעוונ

section, which is under process of construction by East Central Railway. A List of

2.2.3 Levels: All the levels taken for this survey are based on the existing grade of serving

2.2.4

Gradients: The proposed take off point for Amrapall OCP siding, which has been reckoned as Ch.0/00 at railways Ch.36/358.10 km. on Tori - Shivpur section, has been sharpest grade in empty direction of the lead line in between Ch.3604.20 m to grades comprising of level and in rise & fall, out of which 1 in 150 (F) stands as the existing falling grade of 1 in 200 in the main line section is required to be modified as 1 modified & extended up Ch.36/587.70 km of main line section (887.70 m from CSB of line section from Ch.35/250.00 km to Ch.36/450.00km, which is required to be kept on falling grade of 1 in 1200 exists in between the stretch of Tori - Shivpur main and gradient abstract is placed at Annex-2.1. Ch.5004.00 m and in loaded direction on line no. L-6 the sharpest gradient of 1 in 150 of Manatu Station). The balanced portion of the proposed siding will follow different in 180 falling grade from Ch.36/587.70 km to Ch.37/620.00 km (1920.00 m from CSB Ch.301.50 m followed by a further falling grade of 1 in 180 up to Ch.1235.00 m. The Manatu Station) and the same grade has been extended forthe proposed siding up to (R) has been provided in between Ch.228.485 m to Ch.1632.80 m. A list of gradients

- 2.2.5 Curves: On the proposed alignment of the siding, 19 (nineteen) nos. of curves have conditions as well as the existing physical features, out of which Curve No. 3 (RH) as abstract is shown at Annex-2.2. 7º curve with radius of 250.00 m is the sharpest curve. A list of curves and curves the most suitable techno-economical alignment to negotiate with the existing ground been designed, planned & required to be introduced with the ultimate motto to provide
- 2.2.6 Speed potential: Though the track structure will be fully suitable for Heavy coal / proposed siding will have to be restricted to 50 KMPH subject to other speed restrictions because of weighment and loading by SILO arrangement as well as yard mineral trains consist of BOXN/BOBRN wagons, the permissible speed of the

2.2.7 Length: The route length of the proposed siding is about 15.600 kms. and the track movements.

length is about 29.300 kms. Track length falling within Railway land is for about 2600.00 m & outside railway land is for about 26700.00 m.

project Officer Antrapali OCP M-A Area (CCL)

2.2.8 Formation: Formation of the proposed siding line will cross through both cutting and filling zone. Formation in filling zone is designed to be made of mechanically compacted earth with side slopes of 2H: 1V (i.e. 2 horizontal and 1 vertical). The width of single line formation is kept as 7.85 m in filling and 9.25 m in cutting including side drain with side slopes of 1H : 1V (i.e. 1 horizontal and 1 vertical). The formation, when in filling zone and if filling height is higher than 6.0 m & when in cutting zone and if depth of cutting is deeper than 6.0 m, berm width of 3.0 m has been designed to be provided on either side of the embankment. The same procedure shall be followed in every successive height / depth of 6.0 m. In formation, in case of clayey soil - a layer of 1000 mm and in case of granular soil - a layer of 600 mm thickness in filling zone and minimum 300 mm thickness in cutting zone, a compacted layer of blanketing material of approved quality granular / stone dust is designed to be provided over the compacted earthwork in formation, conforming to RDSO guide line. Side slope of the embankment is designed to be grass turfed with approved quality and thickness. A cross slope of 1 in 30 on top of formation, both in filling and cutting zone has been designed to be provided.A typical profile of embankment and cutting is placed at Annex-2.3.

- 2.2.9 Track Centre: Minimum 6.0 m track center is proposed in between two tracks unless otherwise mentioned in the Engineering Plan.
- 2.2.10 Track Structures: The proposed railway track is designed to be laid on 60 kg/90 UTS, T-12 grade, 1st quality rails on new 60 kg. PSC Mono block sleepers (T-2496) in straight and in curved alignment of radius less than 5° and in curves of radius above 5°, PSC Mono block sleeper (T-4183 to T-4186) with the provision of check rails. Sleeper density is proposed for 1660 nos. per kilometer over a layer of 300 mm thick machine broken stone ballast cushion. Points & Crossings will be of 60 kg rails along with curve switches, CMS crossings etc. on PSC sleepers with fan shaped layout. A detail of track structure is placed at Annex-2.4.

2.2.11 Bridges & Culverts: In the proposed alignment 41(forty one) nos. of new bridges are

provided in between the takeoff point to meeting point of the siding. In addition to above 41 nos. of new bridges, following bridge is also required to be extended /

2 nos. of existing railway bridge vide no. 76& 77 (proposed Br. No.1) at railway Ch.36/400.00 km & Ch.36/475.00km respectively are required to be extended at their both faces as per the actual site requirement for accommodating and serving the proposed siding line at empty direction & loaded direction.



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REVISED DETAILED PROJECT REPORT FOR PROVISION OF AAIL INFRASTRUCTURE FOR PROPOSED AMRAPALI COAL BLOCK OF CENTRAL COALFIELDS LIMITED Above Bridges are proposed for new construction including extension based on the

Out of 41 nos. of new proposed bridges, 6 (six) nos. are major bridges and 35 (thirty

Br. No. 7 (2 x 6.0 m x 6.50 m) as Rail under Rail (RUR) bridge at siding line

Box pushing method with the provision for accommodating both present track (shown Ch.2791.618 m (Railway's main line Ch.39/019.50 km) is proposed for construction by in red line) and future track (shown in green line).

All the bridges are proposed for new construction / extension of existing bridges, wherever found necessary, to discharge of rain water from adjoining catchment areas as well as diversion of roads / nalla etc. through ROB's & RUB's.

List of major &minor bridges and bridge abstract is placed at Annex-2.5.

structure as indicated in the Schedule of Dimension (Revised-2004) for Broad Gauge 2.2.12 Fixed Structures: All fixed structures are to be designed to comply with the fixed of Indian Railways.

2.2.13 Traction: The line will be on Electric traction

- point, receiving lines, MGR line, pre & post loading lines, meeting Point of despatch line and tracks connecting SILO's including the new Block Station shall be electrified 2.2.14 Electrification: The proposed railway siding line infrastructure right from the takeoff except chute zone, which shall remain unwired.
- Ch.5294.00 m.; bridge no 20 (ROB) at Ch.6381.00 m. & bridge no. 22 (RUB) at Ch.8041.00 m. respectively and proposed diverted routes of the respective roads are / divert through bridge no. 11 (ROB) at Ch.3701.00 m., bridge no.18 (RUB) at Ch.5404.00 m., Ch.6437.00 m., and Ch.8009.00 m respectively are proposed for pass proposed alignment. All the roads are proposed for pass / diversion through RUB's / ROB's as substitute of Level crossings. The existing crossing roads at Ch.3701.00 m., 2.2.15 Road Crossings / Level Crossings: There are Four (4) nos. of road crossings in the shown in the plan. A list of Road/ Level crossings is placed as Annex-2.6.

in 5 (five) locations which are needed to be cabled as per crossing regulations or may be diverted through underground facilities. A list of LT/HT power line crossings 2.2.16 Power Line Crossings: HT (11 KV) power lines are crossing the proposed alignment crossing is placed as Annex-2.7.

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REVISED DETAILED PROJECT REPORT FOR PROVISION OF RAIL INFRASTRUCTURE immediately after taking off from main line of railway track.Maximum portions of the land required for the proposed rail siding infrastructure falls within the Private land & forest land. Acquisition of land, as may be required, is to be arranged by CCL authorities. Track length falling within railway land is for about 2600.00 m & outside

2.3 Description of Alignment.

2.3.1 On account of grade constraints in the common main line (marked as L-2) at Manatu, it has been found that provision of extra loop lines with adequate length, avoiding the alignment of future 2nd& 3rd lines, on each side is not feasible.E. C. Railway has kept provision for three line section including common main line but intends to construct the section as 'single line' only with the middle one. Considering above aspect, the alignment of both the proposed Up line (L-3) & Dn line (L-1) have been planned & targeted to be used as loop lines to serve the proposed Amrapali siding of CCL, till E. C. Railway set up the commissioning of proposed L-1 & L-3 lines. On construction of the triple line section, there will be no additional loop at Manatu Station unless Railway plans for the same with entire re-gradation of the Manatu Station limit.

- 2.3.2The proposed alignment of the Amrapali siding takes off from common main line (L-2) at Railways Ch.36/358.10 km, which is 658.10 m away from CSB of Manatu Halt Station towards Shivpur Station end on the Tori - Shivpur section between Manatu Halt Station and Shivpur station, which has been reckoned as Ch.0.00 m(Zero) with the provision of 1 in 12 Fan shaped LH Turnout on 1 in 1200 falling grade.
- 2.3.3 The proposed alignment, intended for movement of empty rakes, traverses straight up to Ch.395.258 m and negotiates with RH 4ºCurve no.1 of radius 437.50 m which end at Ch.465.711 m. From Ch.465.711 m the alignment traverses straight up to Ch,1374.486 m and negotiates with RH 4.375°Curve no.2 of radius 400.000 m which end at Ch.1759.265 m. One D/S has been provided at Ch.220.00 m. From Ch.1759.265 m the alignment traverse straight up to Ch.2294.868 m and takes a right turn by forming a right hand 7ºCurve no.3 (RH) of 250.00 m radius and the curve end at Ch.2742.369 m.

From Ch.2742.369 m the lead / empty line alignment run straight below the main line section by means of a rail under rail bridge (RUR - Br. No.7) up to Ch.3119.744 m within level grade and takes a left hand turn by forming a left hand 6.83°Curve no.4 (LH) of 256.00 m radius which end at Ch.3213.232 m. In between Ch.3344.200 m to Ch.3517.658 m provision has been kept for taking up of future siding lines by means of 1 in 12 (CS)

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towards Shivpur Station end in future (as shown in green colour). From Ch.3213.232 m the alignment will follow a straight run up to Ch.4725.572 m. The alignment further takes a left turn by means of a left hand 4.375° Curve no.5 (LH) of 400.00 m radius which ends at Ch.5032.143 m and further traverse straight up to Ch.5853.289 m. From Ch.5853.289 m the alignment takes a right hand turn by means of a right hand

2ºCurve no.6 (RH) of 875.00 m radius which end at Ch.6107.803 m and then run

In between Ch.7637.747 m to Ch.7816.854 m the alignment route is required to be negotiated with two nos. of small curves i.e. left hand 4ºCurve no.7 (LH) of 437.50 m radius & right hand 4.27°Curve no.8 (RH) of 410.00 m radius respectively by leaving a small straight portion in between Ch.7674.121 m to Ch.7782.767 m.

From Ch.7816.854 m the alignment run straight up to Ch.8117.260 m and traverse by taking a left hand turn with 2°Curve no.9 (LH) of 875.00 m radius up to Ch.8931.471 m and then followed by a straight run up to Ch.9199.861 m.

From Ch.9199.861 m the alignment takes a right turn by means of a right hand 5°Curve no.10 (RH) of 350.00 m radius to form the MGR system which run up to Ch.9901.718 m and further traverse a small straight up to Ch.9951.632 m and again takes a right hand turn by forming a right hand 5°Curve no.11 (RH) of 350.00 m radius which end at Ch.10675.015 m.

From Ch.10675.015 m the alignment run straight up to Ch.11529.946 m and negotiates with a small right hand 2ºCurve no.12 (RH) of 875.00 m radius which end at Ch.11574.514 m and run straight up to Ch.11706.708 m and again negotiates with a left hand 2ºCurve no.13 (LH) of 875.00 m radius which end at Ch.11751.276 m.

2.3.4From Ch.11751.276 m the alignment run straight through the 120 T capacity In-Motion Electronic Weigh Bridge at center line Ch.12284.185 m meant for weighing of incoming empty rakes, if required, and the alignment starts diverging from Ch.12437.72 m to form the RLS yard and the lead line within yard will be designated as line no. L-1.

Line no. L-1 will run straight up to Ch.13857.312 m through SILO No.2 at Ch.13650.683 m and 120 T capacity In-Motion Electronic Weigh Bridge at Ch.13699.458 m. From Ch.13857.312 m, L-1 will take a left hand turn by forming a left hand 2^o Curve no.14 (LH) which will end at Ch.14111.826 m and then run straight and after getting converged all the 4 nos. yard lines at Ch.14637.25 m it will meet at Ch.14797.30 m with the incoming empty line at Ch.5157.45 m by means of 1 in 8.5 (CS). Before meeting with the incoming empty line, the outgoing loading line will negotiate with a small left hand 4ºCurve no.15 (LH) of 437.50 m radius in between

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REVISED DETAILED PROJECT REPORT FOR PROVISION OF RAIL INFRASTRUCTURE FOR PROPOSED AMRAPALI COAL BLOCK OF CENTRAL COALFIELDS LIMITED Ch.14672.925 m to Ch.14709.299 m. CAL's of L-1 at pre-loading end & post-loading end are 796.80 m (FM to SILO.2) & 763.20 m (D/S to WB) respectively.

2.3.5Line no. L-2 with its Ch.0.00 m will take off from line no. L-1 at Ch.12798.90 m and will run parallel to L-1 through SILO No.2 at Ch.852.25 m and 120 T capacity In-Motion Electronic Weigh Bridge at Ch.901.00 m. L-2 will meet at its Ch.1737.285 m with L-1 at Ch.14537.655 m. CAL's of L-2 at pre-loading end & post-loading end are 797.25 m (FM to SILO.2) & 761.03 m (D/S to WB) respectively.

- 2.3.6 Line no. L-3 with its Ch.0.00 m will take off from line no. L-1 at Ch.12574.40 m and will run parallel to L-2 through SILO No.1 at Ch.1102.716 m and 120 T capacity In-Motion Electronic Weigh Bridge at Ch.1126.47 m. L-3 will meet at its Ch.2061.036 m with L-1 at Ch.14637.25 m. CAL's of L-3 at pre-loading end & post-loading end are 798.216 m (FM to SILO.1) & 757.73 m (D/S to WB) respectively.
- 2.3.7 Line no. L-4 with its Ch.0.00 m will take off from line no. L-3 at Ch.249.50 m and will run parallel to L-3 through SILO No.1 at Ch.852.57 m and 120 T capacity In-Motion Electronic Weigh Bridge at Ch.876.01 m. L-4 will meet at its Ch.1746.67 m with L-3 at Ch.1998.352 m. CAL's of L-3 at pre-loading end & post-loading end are 797.57 m (FM to SILO.1) & 765.00 m (D/S to WB) respectively.
- 2.3.8 Store Siding with Platform Arrangement: One (1) Store siding designated as line no. L-5 with its Ch.0.00 m of CAL of 750.00 m (D/S to SRJ) has been proposed, which will take off from L-1 at its pre-loading end at Ch.12437.72 m and will meet at its Ch.1080.667 m with L-4 at its pre-loading end at Ch.691.856 m. An over run line of 120 m length has been proposed which will takeoff from Store siding line at Ch.992.917 m. One D/S has been provided at Ch.242.917 m to isolate the store siding at the entry end.
- 2.3.9 One Platform of size 650 m x 30.00 m for the Store siding (L-5) has been proposed to serve the necessary facilities.
- 2.3.10 D/S for all the four (4) loaded despatch lines are provided in L-1 at Ch.14462.655 m, L-2 at Ch.1662.03 m, L-3 at Ch.1884.20 m & L-4 at Ch.1641.01 m respectively.
- 2.3.11The return line in loaded direction, which is designated as line no. L-6, will start its run as Ch.0.00 m from the extended line no. L-1 Ch.14722.30 m. Return line L-6 will run straight and parallel to the incoming empty line from its Ch.0.00 m to Ch.200.342 m and will negotiate with a right hand 4.31°Curve no.5A (RH) of 406.00 m radius which

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REVISED DETAILED PROJECT REPORT FOR PROVISION OF RAIL INFRASTRUCTURE FOR PROPOSED AMRAPALI COAL BLOCK OF CENTRAL COALFIELDS LIMITED will end at Ch.511.496 m and will traverse straight and parallel to the incoming empty / entry line up to its Ch.2050.876 m.

2.3.12From Ch.2050.876 m, line no. L-6 will continue towards Manatu Station end by taking left hand turn by means of left hand 3.5°Curve no.16 (LH) of 500.00 m radius which will end at Ch.2653.104 m. From Ch.2653.104 m to Ch.2906.802 m the alignment will run straight and further takes right turn by means of right hand 2.9°Curve no.17 (RH) of 600.00 m radius which will end at Ch.3351.756 m. The alignment will run straight up to Ch.4449.62 m and then will turn right by means of 1 in 12 (CS) up to Ch.4491.01 m and takes a right turn to form a small right hand 4°Curve no.18 (RH) of 437.50 m radius which end at Ch.4518.898 m. The alignment then runs straight up to Ch.4695.251 m and takes a left turn by means of a left hand 4.375°Curve no.19 (LH) of 400.00 m radius which end at Ch.4778.664 m and then run up to Ch.4943.43 m to meet with common main line (L-2) at railways Ch.36/311.00 km (611.00 m away from the C.L. of Manatu Station towards Shivpur end) by means of 1 in 12 (CS). An overrun line of 120 m long has been provided on L-6 with its take point at Ch.4449.62 m and which will be buffered at Ch.4569.62 m.

- 2.3.13. Two no. of loop lines have been proposed at Manatu Station yard to serve Amrapali siding as discussed under para 2.3.1 above.
- 2.3.14Proposed loop along Dn. Line (L-1) of CAL 762.40 m (SRJ to SRJ) will takeoff / meet by means of 1 in 12 (CS) from / at Common main line (L-2) at Ch.35/347.00 km (353.00 m away from CSB of Manatu Station towards Tori Station end) & siding Ch. (-)1011.10 m considering Ch.0.00 m at takeoff point of Amrapali siding. The proposed loop along Dn. Line will meet / take off by means of 1 in 12 (CS) at / from the siding line on empty direction towards Shivpur Station end at siding Ch.97.60 m (755.70 m from CSB of Manatu Station). An overrun line of 120.00 m long has been provided on proposed loop on Dn. Line taking off from Ch.(-)913.50 m by means of 1 in 12 (CS) at Tori Station end, which will dead ended at Ch.(-)1033.50 m.
- 2.3.15Proposed loop along Up Line (L-3) of CAL 762.40 m (SRJ to SRJ) will take off / meet by means of 1 in 12 (CS) from / at Common main line (L-2) at Ch.35/300.00 km (400.00 m away from CSB of Manatu Station towards Tori Station end) & siding Ch. (-)1058.10 m considering Ch.0.00 m at takeoff point of Amrapali siding. The proposed loop along Up Line will meet / take off by means of 1 in 12 (CS) at / from the siding return line (L-6, on loaded direction) towards Shivpur Station end at Ch.4845.83 m (708.70 m from CSB of Manatu Station). An overrun line of 120.00 m has been provided on proposed

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REVISED DETAILED PROJECT REPORT FOR PROVISION OF RAIL INFRASTRUCTURE FOR PROPOSED AMRAPALI COAL BLOCK OF CENTRAL COALFIELOS LIMITED loop on Up Line at Tori Station end which is taking off from Ch.(-)960.50 m (302.00 m from CSB of Manatu Station) by means of 1 in 12 (CS). An overrun line of 120.00 m along Up Line (L-3) at Shivpur end has been provided, which will take off from siding

2.4 Weighing Facilities

- 2.4.1Four (4) numbers of 120 T capacity In- Motion Electronic Weigh Bridges are provided in each of the four loaded despatch line for weighment of loaded wagons simultaneously during loading. Center lines of the respective Weigh Bridges are at line no. L-1 at Ch.13699.458 m, L-2 at Ch.901.00 m, L-3 at Ch.1126.47 m & L-4 at Ch.876.01 m respectively.
- 2.5 **Engineering Scale Plan**
- 2.5.1 The detailed Civil Engineering Plan & L. Section drawing is placed at Annex-1.6 in 7 sheets. The future connection at Shivpur end (as shown in green line) has not been considered as a part of this revised DPR. .
- **Civil Engineering Cost Estimate** 2.6
- The revised detailed cost estimate of Civil Engineering works has been computed on the basis of present day costs of the items like earthwork, bridges/culverts including 2.6.1 ROB's/RUB's, permanent way materials, road/nalla diversion etc. The cost of Civil Engineering works for the proposed rail-infrastructure has been escalated to Rs.32,951.12lakh mainly due to increase in (i) formation width in filling as per latest guidelines of Railway, (ii) Track length for about 2 kms due change of location of serving station, (iii) No. of bridges by 10 nos., (iv) inclusion of miscellaneous civil works for Electrical and S&T departments and (v) escalation of rate. The details of the estimate is shown as Annex-8.1.

CHAPTER - III

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Signal Engineering & Telecommunication

Introduction: 3.0

ect Officer Amrapali OCP M-A Area (CCL)
- REVISED DETAILED PROJECT REPORT FOR PROVISION OF RAIL INFRASTRUCTURE FOR PROPOSED AMRAPALI COAL BLOCK OF CENTRAL COALFIELDS LIMITED Central Coal Fields Limited (CCL) intends development and operation of Amrapali 3.0.1 Open Cast Mines in North Karanpur Coalfields of Jharkhand with a peak capacity of 12.0 MTPA for supply of coal to Barh and Tandwa Super Thermal Power Stations of
- 3.0.2 Since there is no existence of Rail head nearby it has been planned by CCL to develop rail infrastructure connecting with forthcoming new rail line between Tori - Shivpur -Hazaribagh / Kathautiasection.
- 3.1 Engineering Layout
- 3.1.1 For the purpose of taking off the siding, the upcoming Manatu Halt station at location 35/700 km from Tori has been proposed for conversion into a Block Station for controlling movements of trains to and from the siding. The station will be provided with two (2) bi-directional loops of CAL 762.40 m each.
- 3.1.2 Amrapali siding will take off from kms. 36/358.00 from CSB of Tori station (658.10 m) from CSB of new block station). After taking off, the alignment will traverse to the loading yard through a bulb to facilitate unidirectional movement. The In-plant yard of the siding will constitute of (i) 4 Pre-loading lines, (ii) 4 Post loading lines, (iii) 2 nos. of Rapid Loading System along with 2 Nos. of SILO chutes and (iv) 5 Weighbridges - 1 for weighment of empty rakes, if required and other 4 for weightment of loaded rakes.
- 3.1.3 For direct movement of trains from Amrapali siding to and from Koderma direction, a connectivity has been planned at Shivpur which will be constructed in future, when required.
- Proposed Signalling arrangement: 3.2
- Two Panel Cabins are proposed to be provided, one at the Manatu block station and the other one in the loading yard designated as In-Plant Cabin. Manatu station Panel 3.2.1 Cabin shall control all points and Signals for movement of empties and loaded rakes to and from the siding. The In-Plant Cabin will control all Points and Signals of the loading yard including bulb.
- 3.2.2 Signalling arrangement has been provided in the bulb in such a manner that 3 trains can be accommodated inside the bulb to avoid holding of trains.
- 3.2.3 Track Circuiting is proposed to be provided over the entire yard to ensure occupancy/clearance of the track which will be depicted in the Panel Board. SSDAC 35



REVISED DETAILED PROJECT REPORT FOR PROVISION OF RAIL INFRASTRUCTURE FOR PROPOSED AMRAPALI COAL BLOCK OF CENTRAL COALFIELDS LIMITED and Conventional DC Track Circuit are proposed to be provided with Q series AC

- Calling-on Signal below Home Signal is also proposed to be provided to facilitate 3.2.4 admission of a train in case of either failure of Track Circuit of berthing zone/overlap zone or to admit a train on a blocked line.
- 3.2.5 All points and signals under the jurisdiction of this Cabin will be centrally controlled from the Control cum Operating Panel.
- 3.2.6 Digital Axle Counter for last vehicle checking is also to be provided to ensure clearance of Block section as well as to ensure complete arrival of a train. The Block Proving Axle Counter (BPAC) will be interlocked with the concerned 'Token Less Block Instruments'.
- 3.2.7 All the points in the station yard will be electrically operated through 110 V DC Nontrailable Rotary types IRS Point Machine.
- 3.2.8 Crank Handles are proposed be provided for operation of the Point machine manually in case any motor operated point fails to operate by the route setting process.
- 3.2.9 Data Logger which is a versatile real time data acquisition system is proposed to be provided for fault diagnosis and event logging.
- 3.2.10 SMPS based Integrated Power Supply (IPS) system is proposed to be provided uninterrupted supply to both AC & DC Signaling circuit.
- Proposed Telecommunication arrangement 3.0
- For effective and reliable communication the following Telecom facilities are proposed 3.3.1 to be provided.
 - Point to point communication between:a)
 - Phulbhasia Station and Manatu Station; i)
 - Shivpur Station and Manatu Station; ii)
 - Manatu Station and In Plant Cabin. iii)
 - 25 Watt VHF set complete with all accessories.
 - 5 Watt Hand held VHF section complete with all accessories. b)
 - c)
- System of Block Working 3.4

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3.4.1

REVISED DETAILED PROJECT REPORT FOR PROVISION OF RAIL INFRASTRUCTURE FOR PROPOSED AMRAPALI COAL BLOCK OF CENTRAL COALFIELDS LIMITED



a) Trains will work on Absolute Block System with UFSBI Block Panel with Block i)Manatu Station Cabin and PhulbasiaStation;

(ii)Manatu Station Cabin and In-plant Cabin.

(iii)Manatu Station and Shivpur Station.

- Abstract Cost Estimate 3.5
- 3.5.1 Abstract Cost for all the S&T works is estimated to Rs.1517.32 lakh and the details are placed at Annex-8.2.
- 3.6 Schematic Signalling Plan

Introduction

4.0

3.6.1 The Schematic Signalling Plan for the proposed Signalling arrangement shown in Drg. No. RITES/KOL/CCL/Amrapali/S&T/142/15 and is placed at Annex-3.1 for appreciation.

CHAPTER - IV

Electrical Engineering

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REVISED DETAILED PROJECT REPORT FOR PROVISION OF RAIL INFRASTRUCTURE FOR PROPOSED AMRAPALI COAL BLOCK OF CENTRAL COALFIELDS LIMITED

- **R**ITES
- 4.0.1 Central Coalfields Limited (CCL) have planned to augment evacuation of coal under Amrapali OCP from 4.5 MTPA to a peak level of 12 MTPA progressively and transport it by rail to various power plants including BARH TPP under NTPC via Manatu-Tori section. As & when Shivpur - Kathuatia is opened up, this traffic may avail either of the route after loading through Rapid Loading System. With this end in view, rail connectivity from Manatu station on Tori-Shivpur section, which is yet to come up, has been proposed.
- 4.0.2 Permission for construction of section Shivpur-Kathuata has not as yet been granted. As and when the section is commissioned, the coal traffic may also be diverted via Manatu-Shivpur-Kathuatia when Up & Dn links between Amrapali Siding & Shivpur need to be provided for which no provision for electrical works has been made in this report.
- 4.0.3 The following rail infrastructures are proposed between Manatu & Amrapali siding to cater for an optimum traffic level of 12 MTPA.

I. At Manatu Station

- (i) One loop at either end of single mainline with associate cross-overs;
- (ii) A lead line to Amrapali siding connecting Down loop& associate overruns;
- (iii) A return path linking up loop and associate over runs.

II. At Amrapali Siding

- (a) The lead line shall be connected to return path through bulb with 4 nos of Preloading lines &4 nos of Post loading lines connecting 2SILOs;
- (b) A cross over at Tori end to connect return leg with lead line;
- (c) A store siding with platform of 650 m x 30 m
- (d) Over run lines (2 nos)
- (e) Each of the SILOs shall have two lines with a discharge chute on each line;
- (f) Provision of a weigh bridge on lead line and one weigh bridge on each of the post loading lines.

4.1 Profile of the section

- 4.1.1 The section is mostly laid in straight excepting for a stretch of about 8 kms in patches which will be laid in curves of radius varying between 350 m to 875 m.
- 4.1.2 Heavy filling & cutting to a maximum extent of 22 m is involved over the stretch.

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REVISED DETAILED PROJECT REPORT FOR PROVISION OF RAIL INFRASTRUCTURE RITES FOR PROPOSED AMRAPALI COAL BLOCK OF CENTRAL COALFIELDE LIMITED

The proposed alignment shall pass through a number of major rail bridges & 4.1.3 ROB/ROR.

Speed Potential 4.2

- Speed of 50 kmph has been considered for the siding. 4.2.1
- The empty rake shall move under SILO at a speed of 1 kmph or so for loading. 4.2.2
- The loaded rake shall negotiate the weigh bridges at a maximum speed of 15 kmph.
- 4.2.3

Part A: Traction Distribution

Mode of Traction 4.3

- 4.3.1 The existing section Patratu Tori Barwadih is already electrified. It is considered that electrification of Tori - Shivpur section shall be carried out concurrently with commissioning of the section. In view of above, the proposed sidingneedto be electrified as to maintain uniformity of traction.
 - Scope of wiring 4.4
 - 4.4.1 All the lines propose under this scheme shall be wired in full excepting SILO zone which shall be left unwired. Total Track km to be wired including modification and associate dismantling work is about 30 kms.
 - Conventional all copper regulated OHE of 150 sq.mm section shall be provided on the Details of OHE 4.5 proposed section matching with the one proposed to be provided on Tori - Shivpur 4.5.1 4.5.2 Standard foundations & masts suiting to loading of the location & bearing pressure of

Minimum implantation of 2.8 m shall be maintained on the proposed section. Attempt the soil shall be adopted.

- 4.5.3.1 Railway have proposed additional main lines with a track center of 5.3 m. In case any 4.5.3 mast need to be provided on the lane between proposed single line & future main
- lines, the implantation of the mast need then to be restricted to 2.50 m.

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REVISED DETAILED PROJECT REPORTFOR PROVISION OF RALLINFRAGTRUCTURE RITES

4.5.3.2 In case of drains, the same shall be diverted.

- 4.5.4 Composite type stay, Bracket & 9 t. Insulators of 1050 C.D. shall be provided.
- 4.5.5 Modified 3:1 regulating equipment with modified anti falling device shall be provided.
- 4.5.6 Bonding &Earthing arrangement conforming to latest Bonding &Earthing Code shall be earth pit for level crossing shall be provided. followed. M.S. flat type structure bond shall be provided on station area. Separate
- 4.5.7 Insulated catenary wire underneath bridges & continuous protective screen on ROR/ROB shall be provided as per RDSO guidelines.
- 4.5.8 All piers of major bridges shall havefoundationon either side of the piers to facilitate siting of traction masts. Otherwise bridge uprights shall be used for supporting cantilevers.
- 4.6 Power supply arrangement
- 4.6.1 Richighutha Traction Sub-station (TSS) normally feeds Tori. Adjoining TSS at Ray 2x21.6/30 MVA transformers and registering an M.D. of about 20 MVA. It is anticipated & Siding via Manatu is about 53 kms and that of Ray is about 70 kms which in effect due to normal growth in traffic. On the other hand, distance between Richighutha TSS that by the time the proposed project materializes, existing TSSs will attain saturation feeds Tori under extended feed condition. Each of these TSSs is equipped with will result in abnormal voltage drop necessitating regulation of traffic.
- 4.6.2 In the circumstances, a new TSS at a suitable location is suggested. Location and capacity of transformers shall be decided by the Railway.
- 4.6.3 The proposed TSS shall have fixed type capacitor bank to improve power factor in line
- with Railway Board's letter no. 2008/RE/170/1 dated 12.6.2012.
- 4.6.4 A number of sidings are coming up on Tori Shivpur section which will avail supply capacitor bank be shared by beneficiaries. Total financial implication on provision of from the proposed TSS. It is suggested that the total cost of provision of a TSS with finalization of amount under individual beneficiary, token provision has been made in TSS and extent of share under each beneficiary shall be decided by Railway. Pending

the estimate.

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- Railway may like to review requirement under power supply arrangements keeping Impact of additional traffic on these TSSs/FPs has not been studied. Concerned REVIEED DETAILED PROJECT REPORT FOR PROVISION OF AALL INFRAGTAUGTURE FOR PROPOSED AMRAPALI COAL BLOCK OF CENTRAL COALFIELOR LIMITED 4.6.5 The traffic as proposed shall pass through various sections fed by different TSSs/FPs total power supply scenario in view.
- Switching Post 4.7
- 47.1 It is not known if Railway have planned any Switching Post at Manatu with electrification of Tori - Shivpur section.
- circuit breaker which in turn will feed two interrupters connected by a common bus. at Manatu with one circuit breaker & two interrupters. Supply will be tapped through 4.7.2 A Switching Post for feeding the siding has, however, been proposed under this scheme Each of these equipments shall have bi-pass isolator to meet exigency.
- of Switching post at Manatu shall be decided keeping future expansion of the section augmented to triple line section ultimately. Location and requirement of space for siting $4\ 7\ 2\ 1$ Tori - Shivpur section is proposed to be opened with single line & planned to be as well as that of Switching Post in view.
- 4.7.2.2 Location and dimension of Switching post shall be finalized with approval of Railway.
- 4.7.2.3 Attempt shall be made to provide the same within Railway area.
- which will in turn feed 2 numbers of motorized isolators. Motorized Isolators & Interrupters shall be connected on common bus. The circuit breaker and interrupters to bulb area. Each of these Interrupters shall get juice from lead line and return path 4.7.3 A 2-interrrupter Switching Post at In-plant yard area is also proposed to control supply proposed under this scheme shall be equipped with normally open isolators.
 - 4.7.4 Circuit Breaker & Interrupters shall be equipped with Double pole isolator.
- 4.7.5150 sq.mm feeder with jumper wire of 160 sq.mm shall be used for transmitting power
- supply
- to drawing 4.7.6 Earthing stations under Switching station shall conform
- 4,7,6,1 Buried rail for earthing of Switching station shall also be provided. No.TI/DRG/PSI/E.STN/00001/13/0.

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REVIBED DETAILED PROJECT REPORT FOR PROVIBION OF BAIL INFRASTRUCTURE FOR PROPOSED AMRAPALI COAL BLOOK OF DENTRAL DOALFIELDS LIMITED REVISED DETAILED PROJECT REPORT FOR PROVISION OF RAIL INFRASTRUG FOR PROPOSED AMRAPALI COAL BLOCK OF CENTRAL COALFIELDS LIMITED Wiring cum power supply arrangement is appended under Annex-4.1. 47.7

RITES

Isolation Arrangement 4.8

- 4.8.1

Section Insulator with/without Isolator shall be provided at suitable points for isolation. 4.8.2 The store siding with an unloading platform of 650 m x 30 m shall be isolated by provision of short neutral section at either end of platform. The short neutral section shall be fed by double pole isolator with earthing heel at one end and single pole isolator with earthing heel at other end.

- 4.9 SCADA Work
- 4.9.1 The proposed switching posts shall be remotely controlled from Hajipur R.C.C. The RTU for these posts shall be compatible with SCADA system available under Hajipur R.C.C.
- 4.9.2 Necessary control & communication cable/equipment etc. shall be provided for hooking the RTUs with the SCADA system which is covered under S&T estimate.
- 4.9.3 With addition of new Switching posts under SCADA system, modification of Hajipur RCC need to be done for which necessary provision has been made.
- 4.10 Modification/Dismantling work
- 4.10.1 Tori Shivpur section has not as yet come up. It is however considered that rail connectivity to siding shall be commissioned alongwith/after commissioning of related section when some modification at necks may have to be carried out.
- 4.11 Weigh Bridge
- 4.11.1 Glued joints at either end of weighbridge shall be provided by Civil branch for isolation.
- 4.11.2 Jumperbypassing the weigh bridge shall be provided for continuity of return path.
- 4.11.3 Maintenance free earthing station shall be provided at each of the weigh bridge.
- Tree cutting/Tree Trimming 4.12
- 4.12.1 Tree/bush cutting/Trimming shall be done as required.
- **Details of SILO** 4.13

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RITES

- 4 13.1 Details of SILO have not as yet been furnished by CCL.
- 4.13.2 Different types of chutes (Swing chute and Traverse cum Telescopic Chute) have so far been installed/under installation over different collieries.
- 4.13.3 CMPDI, the design wing of CILvide letter no. CMPDI/RIVII/E&M/BHPC SILO/2012 dated 19.4.2012have furnished some parameters for SILOs with Swing which stipulates as follows.

(i) Height of chute from rail level under lowering down condition	3.93 m
(i) Height of chute from rail level under lowering down condition (ii) Height of chute form Rail level under raised condition	5.50 m

- 4.13.3.1 Details of Traverse cum Telescopic chute has not been furnished. Traverse cum telescopic chute so far planned are with two chutes under each line.
- 4.14 Arrangements of OHE under SILO
- 4.14.1 Railway Board vide letter no.2006/Elect(G)/170/2 dated 18.12.2008 have recommended adoption of following systems for overhead loading.
 - Keeping the loading zone unwired as has been done under S.C. Railway.
 - (i) Excess staggering of contact wire with reduction in size of discharge chute as (ii) done under S.E. Railway.
 - Adoption of Swiveling OHE as done under ballast siding at Obaidullahgunj of (iii) W. C. Railway.
- 4.14.2 In pursuance of Railway Board's letter mentioned above, it has been proposed to adopt unwired zone of 6.5 m below the loading zone.
- 4.14.3 The existing SILOs are having Swing chute with an overall dimension of about 5.3 m with inter distance of 9.0 m.
- 4.14.3.1 The traverse cum telescopic chute now under installation at other places shall maintain an inter distance of 8.5 m between chutes.
- 4.14.4 Depending on availability of type of electric loco & gradient of the section, Railway may offer single/multiple/consist locos.
- 4.14.5 Driver of a single loco will be strained to negotiate restricted length of available contact

wire beyond the unwired zone for SILOs, if equipped with swing chute.

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REVIBED DETAILED PROJECT REPORT FOR PROVISION OF RAIL INFRASTRUCTURE FOR PROPOSED AMRAPALI COAL BLOCK OF CENTRAL COALFIELDS LIMITED 4 14 6 At the meeting held with GM/E&M/CMPDI/Ranchi on 30.01.2012, it was proposed by RITES to adopt one number of telescopic type of chutesto obviate this difficulty. This was agreed to by CMPDI and it was assured that the same will be adopted for future projects where tender has not yet been invited.

4 14 6.1 On the contrary two numbers of traverse cum Telescopic chute has been planned for some SILOs as a result provision of unwired zone that can be negotiated by a single loco cannot be adopted

- 4.14.7 It is, therefore recommended that CMPDI/CCL to go for one telescopic chute with overall dimension of 2 m x 2 m (approx.) in lieu of Traverse cum Telescopic chute to facilitate negotiation of unwired zone by a single loco.
- 4.14.7.1 It is also considered that each SILO shall have two loading lines with an interspacing of 9 m center to center and each line shall have one telescopic chute. It is also considered that any one of the two lines will be in operation at a given time.
- 4.14.7.2 Due to restricted deflection of swing OHE, adoption of the same for a chute size of 2 m x 2 m is also not recommended.
- 4.15 **Operation of Electric Loco under SILO**
- 4.15.1 Empty rake hauled by electric loco with its rear pantograph in raised condition shall stop at 'stop board' and intimate the SILO Operator by blowing the horn once that the electric loco driver is ready to proceed for loading and waiting for signal/audible communication from SILO Operator.
- 4.15.2 The SILO Operator, on receipt of communication from the loco driver shall ensure that
 - (i) The SILO is ready for discharge;
 - (ii) The Telescopic chute is in raised condition;
 - (iii) Digital inputs indicate that traction supply is available at both ends of unwired zone.
- 4.15.3 The SILO Operator shall then make audible communication/signal off.
- 4.15.4 The driver on receipt of communication/getting signal shall then proceed and stop at'Electric Engine stop board' and wait for final command from SILO operator. The driver shall then lower rear pantograph and raise front pantograph. On completion of operation, the driver shall again blow horn once to indicate that the driver is ready to

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אפיופבט סביאונבט אתטאבנו בסאר פניסאר אמטיפוטא טר אאון ואראאפזאנטיזטאני רטא אתטאספבט אאתאאגו נטאר פניסא אמטיפוטא טר אאון ואראאפזאנטיזטאני אורב5

4.15.5 The SILO operator shall then give audible signal to proceed forward. The driver of the loco shall then proceed at a speed of about 1 kmph synchronizing with the speed of

4.15.6 On completion of loading, the driver shall stop at signal under post loading line and onward journey on signal. change pantograph as required and thereafter proceed at permissible speed for

- 4.16 Sequence of operation with multiple loco
- 4.16.1 Same sequence shall be followed for multiple loco considering that the rear loco under multiple unit shall become 'dummy' till loading is complete.
- 4.16.2 Alternatively, both the locos of a multiple can be put to operation with separate Electric engine stop board for Multiple loco. In such case, the empty rake on arrival at which will be in raised condition. nominated stop board shall lower all pantographs except rear pantograph of rear loco
- 4.16.3 The rear pantograph of rear loco of a multi-unit on arrival at Electric Engine Stop Board shall be lowered and thereafter rear pantograph of front loco shall be raised.
- 4.16.4 On completion of above operation, the driver shall wait and proceed on receipt of communication from SILO operator at a speed synchronizing with the speed of discharge (around 1.0 kmph).
- 4.16.5 On completion of loading, the driver shall stop at Signal under Post loading line and raise rear pantograph of rear loco as well and thereafter proceed at permissible speed.
- 4.17 Safety features
- 4,17.1 No structure/equipment shall be provided having clearance less than 2.0 m.
- 4.17.1.1 All safety precautions & guidelines as laid down in ACTM shall be followed during

electrification.

- 4.17.2 The following safety features are proposed for operation of SILO in addition to above:
- (i) Telescopic chute shall normally be in raised condition & locked which shall not be lowered down when electric loco is crossing the SILO.

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- (iii) A sensor to monitor flight of the chute in both directions shall be provided & in (ii) Arrangement shall be made to ensure that the chute is in retracted position even if other associate equipments connected with chute have failed.
- Case of failure to attain desired height from rail level, an audible alarm shall be Sounded to caution the operator when no electric loco shall be allowed to move
- standby power source with appropriate back up which will get connected in the (iv) Hydraulic Power Unit controlling movement of Chute shall also be powered by a event of outage of regular supply.
 - (v) Flow control gate shall also have stand by supply to prevent opening out of gate with chute in raised position.
- for lowering of chute with obstruction (electric loco) underneath, the swing chute (vi) Necessary interlock to be provided to ensure that in case the operator commands shall not come down.
- (vii) The control system shall have interlock facility between 'Permit reception of loco' and 'Permit lowering of chute'
- in raised condition. Another crew address system shall be provided at exit end signal is in OFF position only when Isolators are in closed position & the chute is (viii) A signal & a crew address system shall be provided at entry point to SILO Tower which will be interlocked with status of Isolators and OHE power such that the also to advice proceed command to driver for movement towards terminal.
- (ix) The chute shall be lowered after passage of loco body. Speed of lowering down of chute shall be such that it synchronizes with the speed of the empty rake.
- (x) The bottom most height of chute from rail level shall be of adjustable type such that it changes with the type of wagons (BOBRN/BOXN).

4.17.3 In addition to it, following Caution Boards are proposed to be provided:

	Type of Boards	
Mith Florenent Daint	Retro Reflect type	Illuminated type
Stop Board	Attention to Driver	Depending on the options accepted, illuminated boards shall be provided for the following to avoid confusion (i) Electric Engine Stop Board (ii) Raise Pantograph Board
 Speed limiting Board 	 Lower Pantograph 	
Termination of speed restriction Board	-	

4.17.4 Further, following digital inputs shall be made available to SILO operator in respect of

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REVISED DETAILED PROJECT REPORT FOR PROVISION OF MALL INFRASTRUCTURE FOR PROPOSED AMRAPALI COAL BLOCK OF CENTRAL CDALFIELOS LIMITED status of incoming/outgoing supply to decide upon further course of action by him:

- - 25 KV incoming supply OFF 25 KV outgoing supply OFF 25 KV outgoing supply ON
 - - .
- Isolator at entry in open condition
- Isolator at entry in close condition Isolator at exit in open condition
 - Isolator at exit in close condition.

4.17.5 The above mentioned safety and protection schemes shall be implemented with approval of Railway.

4.17.5.1CCL to ensure that system parameters, safety measures & protection schemes as approved by Railway are followed.

- 4.17.6 All safety measures including earthing of SILO structures and conveyor as required for safe working shall be done.
- 4.18 Other Options
- 4.18.1 In case the scheme for operation of electric loco as proposed is not acceptable to Railway, following alternatives are suggested:
- Pajama chute with traction conductor in between (e
- Power winch Ы q
 - Ъ
- Side arm charger b 0
 - Diesel loco Ð
- of loco. The pajama chute shall not come down when loco passes underneath the 4.18.2 In case of Pajama chute, the OHE shall normally remain dead excepting for passage loading zone.
- shall then be hauled by any of the above mentioned alternatives upto a pre-set point at pantograph of single loco and all pantos under multiple loco. The dead electric loco either end. The electric loco on arrival at entry point of the SILO Tower shall stop at Electric Engine Stop Board, to be provided at suitable location and lower the rear 4.18.3 In case of options (b), (C) & (d) the OHE shall be terminated short of SILO Tower at other end of SILO Tower.

4.18.3.1 Thedead electric loco on reaching the pre-set point located at other end of SILO Tower shall then stop and raise front pantograph for onward movement duly observing

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cautions / directives as mentioned in 4.15.

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Operation of Isolator

4 19.1 It is suggested that operation of isolators located at siding premises be carried out by authorized representatives of the siding owner having competency certificate issued by

4.20

4.19

Training of Railway Crew & Siding personnel

4.20.1 The rake is proposed to be loaded at an approximate speed of 1 kmph. In absence of 'creep-control' system, the electric loco driver has to operate the loco manually at stipulated restricted speed which is solely dependent on individual skill. Training of driving crew may be of help.

- 4.20.2 For opening of isolator one has to develop skill which one can gain by undergoing training.
- 4.20.3 Railway may like to examine the issue of imparting necessary training to loco crew and nominated siding staff.

4.21 Conveyor

- 4.21.1 Complete details of conveyor linking the proposed SILOs is not available. It is considered that the conveyor shall cross the electrified track for which following stipulations are recommended.
 - i) The conveyor shall have protective cover at bottom & two vertical sides. All covers shall run for the entire stretch of electrified track crossed by the conveyor plus 2 m on either side of it.
 - There shall not be any leaf or sliding type window on the conveyor within 2 m on ii) either side of wired tracks. Windows, if any, shall be blanked.
 - Conveyor shall be properly earthed. iv)
 - Launching of Conveyor Girder crossing railway track shall be done duly ensuring V) safe working.

Part B General Services

- **Electrification of Service building** 4.22
- 4.22.1 Electrification of Manatu station building has been considered.

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REVIERO DETALLED PROJECT REPORT FOR PROVISION OF RAL INFRAGINUELURE ARTIGES

4 22 1 1 Manatu station shall have AT supply.

- 4 22.3 A crew rest room with console room for 5 nos of weigh bridges, one FOIS & TMS 4 22 2 The In-plant cabin shall be electrified by availing supply from the plant.
- rooms have been planned. Electrification of these establishments has also been considered by availing supply from the plant.
- wherefrom LT supply will be distributed to various load points. Electrification of Panel 4.22.4 It is considered that CCL shall provide requisite LT supply at electrical Panel room room by availing supply from the plant has been proposed.
 - 4.23 Illumination of yard, Unloading Platform, Pathway, Weigh Bridge area
- 4.23.1 2 nos of 30 m High mast each with 12 x 280 w LED is proposed at Manatu station. It is considered that by the time the scheme materializes, local supply will be available.
 - 4.23.2 4 nos of 30 m High mast each with 12 x 280 W LED is proposed for in-plant yard.
- 4.23.3 It is proposed to illuminate the weigh bridge area by provision of 11 m poles with 90 W Ē
- 4.23.4 Illumination of pathways by provision of 24 W LED at interval has been proposed.
- 4.23.5 Unloading platform shall be electrified with through independent poles.
- 4.24 D.G. Set
- 4.24.1 D.G. Set of 10 KVA capacity with converter of 1 KVA is proposed for console rooms to meet exigency.
- 4.24.2 D.G. set of 82.5 KVA has been proposed to meet power demand of Amrapali Yard Complex in the event of failure of local supply.
- 4.24.3 All these D.G. sets shall have AMF Panel.
- 4.24.4 DG sets shall be housed in DG rooms which shall also be electrified.
- 4.25 Power supply
- 4.25.1 It is considered that LT supply shall be made available by CCL at Panel room.

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SEVISED DETAILED PROJECT REPORT FOR PROVISION OF RAIL INFRASTRUCTURE
RITES

- 4.25.2 Total Power requirement at In-plant is to the tune of 70 KW. CCL to arrange supply
- 4.25.3 Provision for distribution of LT supply to various load points has been made.

accordingly at Panel room.

- 4.26 Modification of Power line
- 4.26.1 There are 7 nos of overhead power line crossings as detailed below:

(iii)	(ii)	(i)		
5406	4298	3548	Chainage (m)	are / nos or overn
	a (vii) 11644	(iv) 8403	Chainage (III) (vi) 9526	Chaina

- 4.26.2 All these crossings shall be cabled in terms of extant crossing regulation.
- 4.26.3 It is proposed to cable entire stretch of 11 kv overhead line crossing between
- chainages 8403 & 11908
- 4.26.4 Modification of 11 KV line shall be done as per drawing to be approved by Railway.
- 4.26.5 There is no other power line for the present. If any other power line comes up on this section and does not conform to crossing regulation, the same shall be modified at the
- cost of siding owner.
- 4.27 Illumination of SILO Tower
- 4.27.1 It is considered that illumination of SILO Tower shall be carried out by CCL separately.
- 4.27.2 Outdoor type fitting to be provided duly maintaining minimum clearance of 2.0 m from live OHE in vicinity.
- 4.28 Accommodation for Railway personnel
- 4.28.1 It is considered that CCL will provide residential accommodation complete with water supply arrangement, sanitary fittings & electrification for Railway personnel working in

siding.

- 4.28.2 The type of quarter and scale of electrical fittings in these quarters shall not be less than the yardstick laid down by Railway for identical category of staff.
- 4.28.3 No provision of electrification of staff quarters has been made

Project Officer Amrapali OCP M-A Area (CCL) 50

Part C: General

Agency for execution of work 4.29

- 4.29.1 Normally such works are carried out by Railway on 'Deposit' term.
- 4.29.2 It appears from the observations made by Sr.DEE/TR-D/Dhanbad, East Central Railway vide letter No. ELD/367/Siding/DPR/RITES(Magadh) dated 23.07.204 that the work of electrification is to be carried out by the siding owner. In such eventuality, the siding owner shall abide by the following:
 - 1. Work shall be carried out on the basis of Sectioning Diagram and all OHE/PSI Plans/drawings etc as approved by Railway. All works shall be carried out as per latest RDSO design/drawing and guideline issued by railway.
 - 2. All electrification materials shall be procured from CORE/RDSO approved regular 3. Forged fittings in lieu of MCI fittings & 7 mm droppers for register arm along with
 - terminal connector (bolted type) made of bronze shall be used. 4. SCADA work shall be executed through the party whose system is in operation
 - under Hajipur RCC or by the Contractor engaged for maintenance of SCADA system under the said RCC. The work shall be carried out under supervision of
 - 5. As for General Services works, electrification of service buildings & other installations shall be done as per IEE Act following latest building code/NEC. 5.1 Wherever applicable, energy efficient equipment with 3-star & above rating having
 - BEE approval shall be used. All other materials shall be from ISO approved firms. 6. All safety measures as prescribed under latest IEE rules/ACTM/Bonding &Earthing
 - Code/Railway shall be adhered to.

Cost of work 4.30

- 4.30.1 Cost of work as assessed is based on the price quoted by various vendors in the recent past & escalated. The estimate also includes provision of items based on directive given by Railway or as per norm.
- 4.30.2 Cost of electrical work is estimated to be Rs.3021.09lakh excluding Departmental charges etc. & Rs.3226.37lakh including Departmental charge and all other incidental charges as detailed under Annex-8.3.

t Office⁵¹ Profe Amrapali OCP M-A Area (CCL)

Scanned by CamScanner

FRITES

- REVISED DETAILED PROJECT REPORT FOR PROVISION OF BAIL INFRASTRUCTURE
- 4.30.3 Departmental charge @ 6.25% has been considered as per Railway Board's letter

4 30.4 The work involves Power block works. Token provision towards Traffic & Power Block charges & hiring charge of Tower wagon has been included in the estimate. Actual cost as may be claimed by Railway to be paid.

4.30.5 Indicative cost on modification of power lines has been shown. Actual cost of modification as may be claimed by the owner of the line is to be paid.

4.30.6 The work also involves associate Civil & S&T works which are covered in the respective estimates.

- 4.30.7 Item nos 13(a) to 13(e) of summary sheet and Estimate E16 are earmarked for Tender as to process supply of materials. Otherwise above amount shall be deposited may be shall be advised by Railway within the amount available, prior to invitation of utilization by Railway. Item wise requirement with ID No & Specification as the case with Railway.
- 4.30.8 Variation in cost in respect of DPR submitted in December 2013 is mainly due to observations apart from price escalation. items like provision of circuit breaker, Traffic & power block charges & compliances of increase in scope of work by way of inclusion of additional wiring, TSS, additional
- 4.31 Schedule of Completion
- 4.31.1 It is expected that the work shall be completed within a period of 36 months from the and traffic blocks are granted by Railway as planned. time final peg marks on alignment, SRJs, Rail level are made available and that power
- 4.32 Maintenance of Assets
- 4.32.1 Electrification assets shall be maintained by Railway as per norm. Necessary infrastructural facility has been covered in the estimate.
- 4.32.2 General services assets created under Manatu station shall be maintained by Railway.
- 4.32.3 General services assets proposed under siding premises shall be maintained by

Siding owner.

Pro Amrapali OCP M-A Area (CCL) fect Officer

REVISEO DETAILED PROJECT REPORT FOR PROVISION OF ANL INFRAFRUCTURE 4 32.4 Siding owner shall also carry out Tree cutting/Tree trimming periodically as per advice

- 4.33 Compliance of observations

vide his letter no. ECR/ELE/PLG/DPR/576 dated 27.02.2014 are furnished under E&D/367/Siding/DPR/RITES (Magadh) dated 23.07.2014 & Dy CEE/W, E. C. Railway 4.33.1 Compliance of observations made by Sr./DEE/TRD/Dhanbad vide his letter no. Chapter-I of the DPR. A CANADA PARTY

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Commercial

Project Officer Amrapali OCP M-A Area (CCL)

CHAPTER-V

REVIJEO OETAILED PROJECT REPORT FOR PROVIJON OF RAIL INFRASTRUCTURE FOR PROPOSED AMRAPALI COAL BLOCK OF GENTRAL GOALFIELOR LIMITED 5.0 Introduction

the loading yard to the nearest and suitable rail head for the purpose of transporting house. Accordingly, it has been planned to construct rail-infrastructure facilities from MTPA. The coal block is linked to the Barh Thermal Power station of NTPC and at the initial stage it has been planned to load 4.50 MTPA of coal for the power start excevation of coal from Amrapali coal block with a targeted capacity of 12.00 5.0.1 Central Coalifields Limited under their mega development programme has planned to coal traffic to power houses and other users.

- of 2013 as issued under Railway Board's letter No. 2012/TC(FM)/18/21 dated 'Engine-on-Load' (EOL) scheme and in this respect, Freight Marketing Circular No. 5 Board's letter No.99/TC(FM)/26/1/Pt-II dated 30.01.2012 shall be followed for construction and operation of the private siding and the siding will be opened as per of 2012 on 'Liberalization of Siding Rules' circulated vide Ministry of Railways, Railway 5.0.2 The Policy regarding siding matters as indicated in the Freight Marketing Circular No.01 07.03.2013 shall be followed.
- the Zonal Railway administration as per terms and conditions of EOL schemes. The The siding holder will require to opt for the EOL operations under an agreement with prescribed free time under EOL scheme for different types of rake is given as under. 5.0.3

Type of wagon	EOL free time in hrs.	ne in hrs.
	Loading	Unloading
Contro (BOVN ato)	3:00	5:00
Den Rake (DUAN BIU.)	TO DESCRIPTION OF THE OWNER OWNER OF THE OWNER OWN	0.00
Jenner Dake (BOBR etc.)	3:00	7:00

- required to maintain a captive engine at his cost under the 'EOL' operations. Beyond without levying any additional charges. The siding owner may, therefore, not be loading or unloading of rakes, within the free time prescribed, the same will be allowed 5.0.4 According to above circular, if a siding holder requires to utilize the train engine during the free time the engine hire charges shall be charged as per extant rules.
- siding / shunting charges for haulage of wagons within the siding will be leviable under 5.0.5 For bulb type sidings freight will be charged on the basis of through distance up to a specified loading or unloading point and not for the entire length of the siding. No
- Weighbridge and TMS Facilities 5.2

the EOL operations.

54

project officer

M-A Area (CCL)

Amrapali.OCP.

5.2.1 Five 120 Ton Electronic In-motion Weighbridges have been provided - one (1)at the POR PROPOSED AMPAPALI EDAL BLOEK OF DENTRAL BOALPELOB LINITED

software will be supplied by Railways for issue of computerized Railway Receipt hardwire peripheral should also be arranged by the siding owner. However, necessary certification from the manufacturer/authorized service provider. TMS equipment and siding owner. The siding owner should also arrange calibration, testing and for which a separate office with necessary furniture will be provided at the cost of simultaneously during loading. The Weighbridges should be linked with FOIS Terminal into preloading lines; the other four(4) Weighbridges shall weigh loaded stock that of loaded rakes. The incoming empty rakes shall be weighed during admission approach of Pre-loading yard for weighment of empty rakes and the other four(4) for

5.2.2 The commercial formalities for handling coal rakes including manning of weighbridges Commercial Department of Dhanbad Division as well as HQs of East Central Railway. at the loading terminal may be finalized after interaction and discussion with the

- 5.3 Execution of Private Siding Agreement
- 5.3.1 The Private Siding Agreement on the prescribed format shall be executed between Railway. agreement as soon as the agreement documents are served to them by Eastern Railways and Central Coalfields Limited, the siding owner who would sign the
- 5.4 Pollution Control
- 5.4.1 CCL has to obtain necessary clearance from MOEF for commissioning of the loading arrangement at the siding and the status be informed to the Railways.



CHAPTER - VI

REVISED DETAILED PROJECT REPORT FOR PROVISION OF MALL INFRASTRUCTURE

Mechanical Engineering

6.0

6.0.1 Central Coalifieids Limited (CCL) has planned to evacuate 12.00 MTPA of coal from coal mines is not adjacent to any rail head, it has been planned to develop rail theproposed Tori-Hazaribagh section. Amrapali coal mines situated at Chandwa district of Jharkhand. Though the subject

6.0.2Intensively examined empty trains are to be supplied for loading by IR and train should borne by the Siding holder. any accident or derailment occurred owing to the fault of siding holder, will usually be run on round-trip BPC. Hence, there will be no need for any maintenance facilities within the siding premises. However, the costs of re-railing/restoration work, in case

6.0.3 For damage and deficiency to wagons inside the siding premises owing to negligence case basis. Railway's discretion for charging damage/deficiency bills on case to case basis shall be final. central Railway. However, for severely damaged wagons, this will be done on case to on the basis of joint sample check to be done in every six monthly or as fixed by East of siding owner, regular damage and deficiency bills will be raised on the siding owner

- 6.0.4 Joint check of loading/unloading points where mechanized equipments are used, of Railway once in 3 months along with the loader/un-loader. Penalties for damages, if detected, should be imposed as per extant rules. should be carried out by officers of Mechanical and Operating / Commercial branches
- 6.0.5 One rest room with toilet facilities for the train crew should be provided near the loading point.



7.0.1 Central Coalifieds Limited (CCL) District of Jharkhand for despatch .0.2 The siding facilities will be develope No. 01 of 2012 circulated under dated 30.01.2012 and the entire of	 Contract of the state of the provision of the state of the state of the state of the work will be borne by state of the owner.
--	--

- 7.0
- 1.1
- 7.1.1

for smooth operation of In-plant yard cabin following operating staff, may be provided, other at the In-plant yard for controlling movement of trains to and from the siding. While the Manatu block cabin will usually be maintained and operated by Railway staff, ed to run two Panel Cabins - one at the Manatu Block station and the preferably from retired Railway employees, for round the clock working:

	Requirement			t	4	•
	Category of staff	oupervisor (Iraffic)	Cabin/Panel operation including RG & I R		Operating Assistant including RG & LR	Total
5	No		2		2	

130

- decided between CCL & Railways shall be made before commissioning of the siding in on the basis of initial deployment of staff at the station. Such payment which shall be cabin the siding owner will have to pay a lump sum amount which would be equal to recurring cost towards maintenance and staff and employment for a period of 10 years 7.1.2 The Manatu Block Panel cabin will control the movement of trains to and from the loading terminal as well as main line movements. For working of Manatu Block panel terms of para 4.4 (iii) of FM Circular No.1 of 2012.
- 7.2 Civil Engineering
- 7.2.1 Civil Engineering maintenance shall be done by the siding owner at his cost and Railways should not claim for any inspection charges. The siding may be maintained by engaging approved Agency.
- Signal & Telecommunication 7.3

Prőject Officer Amrapali OCP M-A ^ - - - (CCL)

REVISED DETAILED PROJECT REPORT FOR PROVISION OF RAIL INFRASTRUCTURE FOR PROPOSED AMRAPALI COAL BLOCK OF CENTRAL COALFIELDS LIMITED

7.3.1 For maintenance and up keeping of the signalling assets of Inplant yard cabin, CCL may provide following staff, may be engaged from the retired Railway employees. Category of staff 1 S&T Maintainer including LR & RG Requirement 2 S&T Helper including LR & RG 2 2 Total 4

7.4 Electric Engineering

7.4.1

Maintenance of the OHE and the cost thereof shall usually be borne by Railway. However, General Service assets at the siding premises shall always be maintained by

7.5 Carriage & Wagons

7.5.1 As regard to C&W maintenance, no C&W facility should be developed. Running repairs of rolling stocks including materials and staff cost in all cases shall be borne by the Railway. However, the cost of re-railment including the repair cost of stock owning to any derailment or accident occurred due to the negligence of siding owner shall be borne by the siding owner.

CHAPTER - VIII

Estimated Cost

Project Officer Amrapali OCP M-A Area (CCL)

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- 8.0 POR PROPOSED DETALLED PROJECT REPORT FOR PROVIDION OF TAIL INFRASTRUCTURE Estimated cost of the proposed Railway Infrastructure
- 8.1 Civil Engineering

8.1.1 The capital cost of Civil Engineering works of the proposed Reliway infrastructure for to Rs32,951.12lakh. The Abstract cost estimate is placed at Annex-8.1. is not included in the estimate. The estimated cost of Civil Engineering works amounts Project Report shall be constructed within the private land and as such the cost of land major & minor bridges, side drains etc. The Railway infrestructure as planned in the consideration the present day cost of earthwork, P-way, track, ballast, track fittings, transportation of coal from Amrapali Coal Block has been assessed taking into

- 8.2 Signal Engineering & Telecommunication

8.2.1 Signalling & Telecommunication works have been computed for providing Signalling & Telecommunication arrangements works out to Rs.1517.32 lakhs and is placed at Abstract cost estimate has been prepared for providing the Signalling block station and the other at the loading yard for controlling train movements. The the coal loading terminal. Two Panel Cabins have been provided - one at the new &Telecommunication arrangements for reception and despatch of trains to and from

- 8.3 Electrical (OHE) Engineering works
- 8.3.1 The Abstract Cost for provision of OHE has been prepared based on the norms is estimated at Rs 3021.09lakhs. Estimate. The Abstract Cost Estimate for providing OHE and General electrical works General electrical works for illumination of loading yard has been included in the Cost adopted in Railways for provision of OHE installation including wiring. The cost of
- 8.4 Estimated Total Capital Cost
- 8.4.1 The estimated total capital cost for construction of the proposed railway infrastructure the estimated cost of different disciplines are tabulated as under:has been estimated at Rs.37,489.53lakhs and is placed at Annex - 8.0. The details of

Amrapali OCP M-A Area (CCL)

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[Rs. inlakh]



8.4.2 In addition to above, as per para 3 of Railway Board's FM circular No.1 of 2012, the overhead charges, in terms of provision of Engineering Code, shall be payable by the 'Deposit works', as to be executed by Railways, by the party under Railway's following table: SI.

	10		μ				Ņ				-	No
supervision)	ies: arged establishments tablishment		D & G Charges:	inclusive of cost of establishment			Departmental Charges for OHE	(Inclusive of cost of tools & plants and establishment supervision) Departmented Ch.			Departmental Charges:	Purpose
Approved Consultant	Party	Railway		Approved Consultant	Party	Maiway	Det -	Approved Consultant 4 %	Party	Railway	-vecution by	
	大学にして	A		61/ %	6% %	121/2 %	alla -	4 %	6% %	1215 %		
	Ref.Para-1829F1	As per actuals if any	UDISIAIadras A Investigation	mandatony succession	works for Railway's	Cost of OHE and S&T	Such and	OHE and SAT works	excluding cost of	Cost of miniad	Charges	

8.4.3As par Para 1829 of the Code for the Engineering Department, Codal charges at the following sequence are payable to Railways:-

Final Inspection		Surveys
Final 2% of the cost of project while applying for the final approval of the Inspection completed works.	(b) Balance amount to complete 2% of the estimated cost of the project at the stage of conveying approval to Superinted cost of the project	(a) 1 % of the assessed cost of the project at the stage the party's proposal for undertaking the sunev is approach to the party's





The Gazette of India

असाधारण EXTRAORDINARY भाग II—खण्ड 3—उप-खण्ड (ii) PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित

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कोयला मंत्रालय अधिसूचना

नई दिल्ली, 30 अगस्त, 2017

का.आ. 2832(अ).—केन्द्रीय सरकार, कोयला धारक क्षेत्र (अर्जन और विकास) अधिनियम, 1957 (1957 का 20) (जिसे इसमें इसके पश्चात् उक्त अधिनियम कहा गया है) की धारा 7 की उप-धारा (1) के अधीन जारी भारत सरकार के कोयला मंत्रालय की अधिसूचना संख्यांक का॰आ॰ 1792(अ), तारीख 5 जून, 2017 द्वारा भारत के राजपत्र, भाग II, खंड 3, उप-खंड (ii), तारीख 6 जून, 2017 में प्रकाशित उस अधिसूचना से सलग्न अनुसूची में विनिर्द्धिष्ट 1595.10 हेक्टेयर (लगभग) अथवा 3941.51 एकड़ (लगभग) परिक्षेत्र की माप वाली भूमि में और उस के सभी अधिकारों का अर्जन करने के अपने आशय की सूचना दी थी;

और, सक्षम प्राधिकारी ने उक्त अधिनियम की धारा 8 के अनुसरण में केन्द्रीय सरकार को अपनी रिपोर्ट दे दी है ;

और, केन्द्रीय सरकार का उपर्युक्त रिपोर्ट पर विचार करने के पश्चात् और झारखंड सरकार से परामर्श करने के पश्चात् यह समाधान हो गया है कि इससे संलग्न अनुसूची में यथा विनिर्द्धि 1595.10 हेक्टेयर (लगभग) अथवा 3941.51 एकड़ (लगभग) माप वाली भूमि में या उस पर के सभी अधिकारों का अर्जन किया जाना चाहिए।

अतः, अब, केन्द्रीय सरकार, उक्त अधिनियम की धारा 9 की उप-धारा (1) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए घोषणा करती है कि इससे संलग्न अनुसूची में विनिर्दिष्ट 1595.10 हेक्टेयर (लगभग) अथवा 3941.51 एकड़ (लगभग) माप वाली भूमि में और उस पर के सभी अधिकार अर्जित किए जाते हैं।

इस अधिसूचना के अधीन आने वाले क्षेत्र के रेखांक संख्यांक आर॰ई॰वी॰/9/2017, तारीख 5 अगस्त, 2017 का निरीक्षण उपायुक्त, जिला चतरा और लातेहार, झारखण्ड के कार्यालय में या कोयला नियंत्रक, 1, काउंसिल हाउस स्ट्रीट, कोलकाता - 700001 के कार्यालय में या महाप्रबंधक, मगध-आम्रपाली क्षेत्र, जिला चतरा और लातेहार, झारखण्ड या 5399 GI/2017 (1)

RASINGH RIE चय महाप्रवंधकोविमागाध्यक्ष (वन एवं पर्या०) सीठ रहित एला. रॉसी Dy. GMIHOD (Env. & Forest)

Amrapali OCP M-A Area CCL

THE GAZETTE OF INDIA: EXTRAORDINARY

[PART II-SEC. 3(ii)]

महाप्रबंधक, भूमि और राजस्व, सेंट्रल कोलफील्ड्स लिमिटेड, दरभंगा हाउस, राँची- 834001, झारखंड या मुख्य महाप्रबंधक (खोज प्रभाग), सेंट्रल माइन प्लार्निंग एण्ड डिजाइन इन्स्टीच्यूट लिमिटेड, गोंडवाना पैलेस, कांके रोड, राँची- 834008, झारखंड के कार्यालय में किया जा सकता है ।

अनुसूची

आम्रपाली विस्तार – II विवृत परियोजना

जिला - चतरा और लातेहार (झारखंड)

(रेखांक संख्यांक आर॰ई॰वी॰/9/2017, तारीख 5 अगस्त, 2017)

ब्लॉक – क

सभी अधिकार:

क्र. सं.	ग्राम	थाना	थाना संख्या	जिला	क्षेत्रफल (हेक्टेयर)	क्षेत्रफल (एकड़)	टिप्प-णियां
1.	सोपारम	टंडवा	24/181	चतरा	68.19	168.50	भाग
2.	कोएद	टंडवा	31/188	चतरा	82.96	205.00	भाग
3.	नौडीहा	टंडवा	32/189	चतरा	57.37	141.75	भाग
4.	कसियाडीह	टंडवा	34/202	चतरा	90.04	222.50	भाग
5.	सेरेंदाग	टंडवा	46/203	चतरा	119.79	296.00	भाग
6.	र्बिंगलात	टंडवा	49/206	चतरा	64.40	159.14	भाग
7.	होनहे	टंडवा	50/207	चतरा	342.33	845.90	भाग
8.	बनालात	बालूमाथ	49	लातेहार	2.22	5.49	भाग
		कुल:			827.30 हेक्टेयर (लगभग)	2044.28 एकड़ (लगभग)	

व्लॉक - ख

सभी अधिकार:

क्र. सं.	ग्राम	थाना	थाना संख्या	जिला	क्षेत्रफल (हेक्टेयर)	क्षेत्रफल (एकड़)	टिप्प-णियां
1	सराधू	टंडवा	29/186	चतरा	571.63	1412.50	भाग
2	हेचाबलिया	टंडवा	30/187	चतरा	129.04	318.85	भाग
3	कामता	टंडवा	60/217	चतरा	55.24	136.50	भाग
4	मासीलौंग	टंडवा	61/218	चतरा	11.89	29.38	भाग
	-	कुल:		767.80 हेक्टेयर (लगभग)	1897.23 एकड़ (लगभग)		

कुल क्षेत्रफल = (ब्लॉक-क + ब्लॉक - ख) = (827.30 + 767.80) = 1595.10 हेक्टेयर(लगभग)

या

(2044.28 + 1897.23) = 3941.51 एकड़ (लगभग)

सी गित्र सिंह SOUNDTEA SINGH उप महाप्रसिद्धार्भिमागायस (दन एवं पर्या०) सी० सी० एल०. साँची Dy. GM/HOD (Env. & Forest). C.C.L., Ranchi

Project Officer Amrapali OCP M-A Area CCL

भारत का राजपत्र : असाधारण

ब्लॉक - क

(1) ग्राम सोपारम में अर्जित भूमि की प्लॉट संख्या: 235(भाग), 236(भाग), 237(भाग), 256(भाग), 259, 260, 261, 262(भाग), 266(भाग), 269(भाग), 270, 271, 272, 273, 274, 275(भाग), 287(भाग), 289(भाग), 290, 299, 300(भाग), 301, 302(भाग), 303(भाग), 306(भाग), 309(भाग), 311(भाग), 312(भाग), 313(भाग), 932 से 972 और 976 से 999.

(2) ग्राम कोएद में अर्जित भूमि की प्लॉट संख्या: 1(भाग), 2 से 69, 70(भाग), 1059(भाग), 1065(भाग), 1067(भाग), 1069(भाग)), 1070(भाग), 1071 से 1077, 1078(भाग), 1079(भाग), 1081(भाग), 1082(भाग), 1083 से 1088, 1091(भाग), 1092(भाग), 1093(भाग), 1094(भाग), 1095, 1096, 1097(भाग), 1098 से 1116, 1117(भाग), 1118 से 1125, 1126(भाग), 1191(भाग), 1192, 1193(भाग), 1194(भाग) और 1195.

(3) ग्राम नौडीहा में अर्जित भूमि की प्लॉट संख्या: 10, 25(भाग), 26(भाग), 27(भाग), 28, 29(भाग), 30(भाग), 31(भाग), 32 से 52, 53(भाग), 54(भाग), 55(भाग), 56(भाग), 61(भाग), 62 से 114, 123(भाग), 124 से 160, 161(भाग), 163 से 183, 184(भाग), 185, 188(भाग), 190, 192(भाग), 196(भाग), 197(भाग), 198, 199, 200(भाग), 201 से 207, 208(भाग), 209(भाग), 210(भाग), 212(भाग), 217(भाग) और 290(भाग).

(4) ग्राम कसियाडीह में अर्जित भूमि की प्लॉट संख्या: 465 से 469, 741(भाग), 742(भाग), 776, 784, 785, 787, 789(भाग), 790, 791, 795 से 825, 826(भाग), 827(भाग) और 828 से 893.

(5) ग्राम सेरेंदाग में अर्जित भूमि की प्लॉट संख्या: 41 से 48, 132, 133, 138(भाग), 139(भाग), 140(भाग), 141(भाग), 142 से 260, 261(भाग), 263(भाग), 264 से 314, 315(भाग), 316 से 321, 473(भाग), 478(भाग), 480 से 487, 488(भाग), 489 से 579, 580(भाग), 581 से 689, 165/691 तथा 176/ 695.

(6) ग्राम बिंगलात में अर्जित भूमि की प्लॉट संख्या: 1(भाग), 2(भाग), 281, 282, 283, 284(भाग), 285 से 290, 292(भाग) तथा 728(भाग).

(7) ग्राम होनहे में अर्जित भूमि की प्लॉट संख्या: 40(भाग), 41 से 68, 69(भाग), 70, 71, 72, 73(भाग), 75(भाग), 76 से 104, 105(भाग), 106, 108(भाग), 113(भाग), 116(भाग), 117, 118(भाग), 119 से 125, 126(भाग), 127(भाग), 128(भाग), 129 से 273, 274(भाग), 275 से 290, 291(भाग), 292 to 414, 415(भाग), 416 से 650, 651(भाग), 652 से 684, 685(भाग), 686, 687(भाग), 688, 689, 690(भाग), 691(भाग), 692, 693, 694, 701(भाग), 703(भाग), 704(भाग), 706(भाग), 707(भाग), 708, से 717, 718(भाग), 722(भाग), 739 से 799, 807(भाग), 846(भाग), 847 से 854, 855(भाग), 226/858, 862(भाग), 863(भाग), 864(भाग), 867(भाग), 869(भाग), 870(भाग), 772/879, 422/880, 542/881, 437/882, 277/886, 213/887, 190/888, 183/889, 183/890, 75/891, 75/892 और 75/893,

(8) ग्राम बानालात में अर्जित भूमि की प्लॉट संख्या: 23(भाग), 24(भाग), 33(भाग) और 34(भाग).

ब्लॉक - ख

(1) ग्राम सराधु में अर्जित भूमि की प्लॉट संख्या: 191(भाग), 192(भाग), 208(भाग), 251(भाग), 275(भाग), 276(भाग), 277(भाग), 281(भाग), 282 से 302, 303(भाग), 304 से 308, 309(भाग), 310, 311, 312(भाग), 313(भाग), 314(भाग), 797, 798, 799, 874(भाग), 875(भाग), 886, 906(भाग), 907(भाग), 908 से 925, 926(भाग), 927 से 932, 933(भाग), 934(भाग), 935(भाग), 936(भाग), 937 से 965, 966(भाग), 967(भाग), 968(भाग), 969(भाग), 997(भाग), 1000, 1001, 1002(भाग), 1003(भाग), 1004(भाग), 1006(भाग), 1007((भाग), 1008(भाग), 1010(भाग), 1011 से 1036, 1037(भाग), 1038(भाग), 1039 से 1705, 1706(भाग), 1709(भाग), 1712 से 1719,

- अगोमित्र सिंह SOUMITRA SINGH सा महाप्रबंधकविमानाध्यक्ष (वन एवं पर्या०) सीठ सीठ एल०, राँची Dy. GM/HOD (Env. & Forest) C.C.L., Ranchi

Project Officer Amrapali OCP M-A Area CCL

THE GAZETTE OF INDIA: EXTRAORDINARY

[PART II-SEC. 3(ii)]

909/1720, 1818, 1832, 1833(भाग), 1836, 1929, 1931, 1932, 1948 से 2018, 2026 से 2029 और

(2) ग्राम हेचाबलिया में अर्जित भूमि की प्लॉट संख्या: 2(भाग), 3(भाग), 5(भाग), 6, 7(भाग), 17(भाग), 18 से 64, 65(भाग), 66 से 71, 72(भाग), 73(भाग), 74(भाग), 75(भाग), 76(भाग), 77, 78(भाग), 79, 80, 81(भाग), 82(भाग)

(3) ग्राम कामता में अर्जित भूमि की प्लॉट संख्या: 223 से 229, 230(भाग), 231 से 238, 562(भाग), 572 से 598, 741, 742(भाग), 743 से 767, 770(भाग), 771, 772(भाग), 776(भाग), 777, 778 और 779. (4) ग्राम मासिलौंग में अर्जित भूमि की प्लॉट संख्या: 1(भाग), 2(भाग), 19(भाग), 20 से 26, 28(भाग) और 308(भाग).

ब्लॉक - क

क-ख-ग-घ

रेखा, बिन्दु 'क' से शुरू होकर ग्राम नौडीहा के प्लॉट संख्या 56, 54, 53, 25, 26, 28 तथा 10, ग्राम कोएद के प्लॉट संख्या 01, 1059, 1065, 1191, 1067, 1069, 1097 तथा 1117, ग्राम सोपारम के प्लॉट संख्या 235, 236, 237, 256, 313, 275, 289, 287 तथा 476, ग्राम बानालात के प्लॉट संख्या 33, 23, 24, 34 तथा 33, ग्राम सोपारम के प्लॉट संख्या 309, 311, 312, 313, 954, 955, 965, 963, 962, 961, 968, 969, 970, 971, 972, 976, 977, 978, 982, 983, 984, 985, 986, 988, 989, 990, 991, 992, 993, 994, 997, 998, 999, 995, 989, 988, 987, 986, 985, 983, 981, 980, 979, 978, 977, 976, 972, 971, 970, 969 तथा 967, ग्राम कोएद के प्लॉट संख्या 1126 तथा 70, ग्राम नौडीहा के प्लॉट संख्या 312, 207, 208, 209, 210, 212, 217, 197, 196, 192, 290 तथा 289 (नाला) से गुजरते हुए बिन्दु 'घ' पर मिलती है।

घ-ङ-च-छ

रेखा, ग्राम नौडीहा के प्लॉट संख्या 289, ग्राम होनहे के प्लॉट संख्या 807, आम्रपाली के अधिग्रहण सीमा रेखा, का. आ. संख्या 1381, तारीख 10.05.2003 से गुजरते हुए बिन्दु 'छ' पर मिलती है

छ-ज-झ-ञ

रेखा ग्राम बिंगलात में बरकी नदी के मध्य रेखा, ग्राम सेरेंदाग के प्लॉट संख्या 689, 487, 488, 478, 473, 580, 593, 315, 321, 320, 263, 261, 133, 138, 139, 140, 47, 48, 44, 43, 42 तथा 41, ग्राम कसियाडीह के प्लॉट संख्या 741, 742, 809, 803, 796, 795, 791, 789, 787, 785, 784, 776, 826, 469, 468, 467, 466, 465 तथा 827, ग्राम होनहे के प्लॉट संख्या 846, 139, 138, 135, 130, 131, 128, 127, 126, 118, 116, 113, 108, 105, 94, 76, 69, 75, 73, 69, 870, 869, 867, 864, 291, 415, 864, 863, 40 तथा 289 (मंगरदाहा नदी की मध्य रेखा) से गुजरते हुएँ बिन्दु 'ज' पर मिलती है।

ञ-ट-ठ-क

रेखा, ग्राम नौडीहा के प्लॉट संख्या 289 (मंगरदाहा नदी की मध्य रेखा), 290, 190, 192, 196, 197, 198, 199, 200, 201, 203, 204 तथा 188, ग्राम कोएद के प्लॉट संख्या 70, ग्राम नौडीहा के प्लॉट संख्या 188, 167, 166, 165, 164, 162, 161, 119, 123, 114, 111, 64,

63, 62, 61 तथा 56 से गुजरते हुए आरंभिक जिन्दु क' पर मिलती है। इए गहार्षियकोतिमानाच्यम (वन एवं पर्या०) स्व महार्षियकोतिमानाच्यम (वन एवं पर्या०) रति। एला०, रांची (GNIHOD (Env. & Forest) C.C.L., Ranchi

Project Officer Amrapali OCP M-A Area CCL

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ब्लॉक - ख

ठ-ड-ढ-ण-त

रेखा, बिन्दु 'ठ' से शुरू होकर ग्राम हेचाबलिया के प्लॉट संख्या 02 (दोमुहान नदी के मध्य रेखा), 03, 05, 07, 17, 74, 73, 72, 75, 76, 78, 81 और 82, ग्राम सराधु के प्लॉट संख्या 191, 192, 284, 281, 277, 276, 251, 267, 265, 264, 309, 314, 313, 1038, 1037, 999, 997, 1001, 1002, 1003, 1004, 1006, 1007, 1008, 1010, 996, 967, 968, 969, 935, 934, 933, 926, 907, 906, 886, 875, 874, 1706 तथा 1833 (सराधु नाला के मध्य रेखा) से गुजरते हुए बिन्दु 'त' पर मिलती है ।

त-थ-द-ध

रेखा, 1833 (सराधु नाला के मध्य रेखा), ग्राम मासीलौंग के प्लॉट संख्या 01, 02, 19, 28, ग्राम कामता के प्लॉट संख्या 772, 771, 762, 770, 767, 777, 779 और 778 से गुजरते हुए बिन्दु

ध-न-प-ठ

रेखा ग्राम कामता के प्लॉट संख्या 778, 742, 598, 597, 573, 572, 562, 238, 228, 225, 224, 223, 229, प्लॉट संख्या 230 (मासीलौंग ग्राम में नाला के मध्य रेखा), प्लॉट संख्या 1621 (सराधु ग्राम में दोमुहान नदी के मध्य रेखा), प्लाट संख्या 420(हेचाबलिया ग्राम में दोमुहान नदी के मध्य रेखा) से गुजरते हुए आरंभिक बिन्दु 'ठ' पर मिलती है ।

> [फा.सं. 43015/23/2017-एलए एण्ड आईआर] विवेक भारद्वाज, संयुक्त सचिव

MINISTRY OF COAL

NOTIFICATION

New Delhi, the 30th August, 2017

S.O. 2832(E) .- Whereas by the notification of the Government of India in the Ministry of Coal number S.O. 1792(E), dated the 5th June, 2017, issued under sub-section (1) of Section 7 of the Coal Bearing Areas (Acquisition and Development) Act, 1957 (20 of 1957) (hereinafter referred to as the said Act) and published in the Gazette of India, Part II, Section 3, Sub-section (ii), dated the 6th June, 2017, the Central Government gave notice of its intention to acquire all the rights in and over the land measuring 1595.10 hectares (approximately) or 3941.51 acres (approximately) in the locality described in the Schedule appended to that notification;

And whereas, the competent authority in pursuance of section 8 of the said Act has made his report to the Central Government;

And whereas, the Central Government after considering the report aforesaid and after consulting the Government of Jharkhand is satisfied that all the rights in and over land measuring 1595.10 hectares (approximately) or 3941.51 acres (approximately), described in the Schedule appended hereto should be acquired;

Now, therefore, in exercise of the powers conferred by sub-section (1) of section 9 of the said Act, the Central Government hereby declares that all rights in and over land measuring 1595.10 hectares (approximately) or 3941.51 acres (approximately) described in the Schedule annexed hereto are hereby acquired.

The plan bearing number REV/9/2017, dated the 5th August, 2017 of the area covered by this notification may be inspected in the Office of the Deputy Commissioner, District Chatra and Latehar, Jharkhand or at the Office of Coal Controller, 1, Council House street, Kolkata - 700001 or at the Office of the of General Manager, Magadh-Amrapali

THE RE. चय महाप्रवंधक/दिमागाध्यक्ष (वन एवं प्रयो०) सी० सी० एल०, राँची Dy. GM/HOD (Env. & Forest) C.C.L., Ranchi

Project Officer Amrapali OCP M-A Area CCL

[PART II-SEC, 3(ii)]

Area, District Chatra and Latehar, Jharkhand or General Manager, Land and Revenue, Central Coalfields Limited, Darbhanga House, Ranchi 834001, Jharkhand or Chief General manager (Exploration Division), Central Mine Planning and Design Institute Limited, Gondwana Palace, Kanke Road, Ranchi - 834008, Jharkhand.

SCHEDULE Amrapali Expansion – II Opencast Project District- Chatra and Latehar (Jharkhand)

(Plan bearing number REV/9/2017, dated the 5th August, 2017)

Block - A

All Rights:

SI No.	Village	Thana	Thana number	District	Area (hectares)	Area (acres)	Remarks
1.	Soparam	Tandwa	24/181	Chatra	68.19	168.50	Part
2,	Koed	Tandwa	31/188	Chatra	82.96	205.00	Part
3.	Naudiha	Tandwa	32/189	Chatra	57.37	141.75	Part
4.	Kasiadih	Tandwa	34/202	Chatra	90.04	222.50	Part
5.	Serendag	Tandwa	46/203	Chatra	119.79	296.00	Part
6.	Binglat	Tandwa	49/206	Chatra	64.40	159,14	Part
7.	Honhe	Tandwa	50/207	Chatra	342.33	845.90	Part
8.	Banalat	Balumath	49	Latehar	2.22	5.49	Part
		Total :	827.30 hectares (approxi- mately)	2044.28 acres (approxi- mately)			

Block - B

All Rights:

SI No.	Village	Thana	Thana number	District	Area (hectares)	Area (acres)	Remarks
1.	Saradhu	Tandwa	29/186	Chatra	571.63	1412.50	Part
2.	Hechabalia	Tandwa	30/187	Chatra	129.04	318.85	Part
3.	Kamta	Tandwa	60/217	Chatra	55.24	136.50	Part
4.	Masilaung	Tandwa	61/218	Chatra	11.89	29.38	Part
		Total :	767.80 hectares (approxi- mately)	1897.23 acres (approxi- mately)			

Block - A

(1) Intention of plot numbers acquired in village Soparam : 235(P), 236(P), 237(P), 256(P), 259, 260, 261, 262(P), 266(P), 269(P), 270, 271, 272, 273, 274, 275(P), 287(P), 289(P), 290, 299, 300(P), 301, 302(P), 303(P), 306(P), 309(P), 311(P), 312(P), 313(P), 932 to 972 and 976 to 999.

Project Officer Amrapali OCP M-A Area CCL

(2) Intention of plot numbers acquired in village Koed : 1(P), 2 to 69, 70(P), 1059(P), 1065(P), 1067(P), 1069(P), 1070(P), 1071 to 1077, 1078(P), 1079(P), 1081(P), 1082(P), 1083 to 1088, 1091(P), 1092(P), 1093(P), 1094(P), 1095, 1096, 1097(P), 1098 to 1116, 1117(P), 1118 to 1125, 1126(P), 1191(P), 1192, 1193(P), 1194(P) and 1195.

(3) Intention of plot numbers acquired in village Naudiha : 10, 25(P), 26(P), 27(P), 28, 29(P), 30(P), 31(P), 32 to 52, 53(P), 54(P), 55(P), 56(P), 61(P), 62 to 114, 123(P), 124 to 160, 161(P), 163 to 183, 184(P), 185, 188(P), 190, 192(P), 196(P), 197(P), 198, 199, 200(P), 201 to 207, 208(P), 209(P), 210(P), 212(P), 217(P) and 290(P).

(4) Intention of plot numbers acquired in village Kasiadih : 465 to 469, 741(P), 742(P), 776, 784, 785, 787, 789(P), 790, 791, 795 to 825, 826(P), 827(P) and 828 to 893.

(5) Intention of plot numbers acquired in village Serendag : 41 to 48, 132, 133, 138(P),, 139(P), 140(P), 141(P), 142 to 260, 261(P), 263(P), 264 to 314, 315(P), 316 to 321, 473(P), 478(P), 480 to 487, 488(P), 489 to 579, 580(P), 581 to 689, 165/691 and 176/ 695.

(6) Intention of plot numbers acquired in village Binglat: 1(P), 2(P), 281, 282, 283, 284(P), 285 to 290, 292(P) and 728(P).

(7) Intention of plot numbers acquired in village Honhe : 40(P), 41 to 68, 69(P), 70, 71, 72, 73(P), 75(P), 76 to 104, 105(P), 106, 108(P), 113(P), 116(P), 117, 118(P), 119 to 125, 126(P), 127(P), 128(P), 129 to 273, 274(P), 275 to 290, 291(P), 292 to 414, 415(P), 416 to 650, 651(P), 652 to 684, 685(P), 686, 687(P), 688, 689, 690(P), 691(P), 692, 693, 694, 701(P), 703(P), 704(P), 706(P), 707(P), 708, to 717, 718(P), 722(P), 739 to 799, 807(P), 846(P, 847 to 854, 855(P), 190/888, 183/899, 183/890, 75/891, 75/892 and 75/893.

(8) Intention of plot numbers acquired in village Banalat : 23(P), 24(P), 33(P), 34(P).

Block - B

(1) Intention of plot numbers acquired in village Saradhu : - 191(P), 192(P), 208(P), 251(P), 275(P), 276(P), 277(P), 281(P), 282 to 302, 303(P), 304 to 308, 309(P), 310, 311, 312(P), 313(P), 314(P), 797, 798, 799, 874(P), 875(P), 886, 906(P), 907(P), 908 to 925, 926(P), 927 to 932, 933(P), 934(P), 935(P), 936(P), 937 to 965, 966(P), 967(P), 968(P), 969(P), 997(P), 1000, 1001, 1002(P), 1003(P), 1004(P), 1006(P), 1007(P), 1008(P), 1010(P), 1011 to 1036, 1037(P), 1038(P) 1039 to 1705, 1706(P), 1709(P), 1712 to 1719, 909/1720, 1818, 1832, 1833(P), 1836, 1929, 1931, 1932, 1948 to 2018, 2026 to 2029, 1702/2030.

(2) Intention of plot numbers acquired in village Hechabalia : - 2(P), 3(P), 5(P), 6, 7(P), 17(P), 18 to 64, 65(P), 66 to 71, 72(P), 73(P), 74(P), 75(P), 76(P), 77, 78(P), 79, 80, 81(P), 82(P) and 83 to 434.

(3) Intention of plot numbers acquired in village Kamta : - 223 to 229, 230(P), 231 to 238, 562(P), 572 to 598, 741, 742(P), 743 to 767, 770(P), 771, 772(P), 776(P), 777, 778 and 779.

(4) Intention of plot numbers acquired in village Masilaung : - 1(P), 2(P), 19(P), 20 to 26, 28(P) and 308(P).

Boundary Description:

Block - A

A-B-C-D

Line starts from Point 'A' and passes through Plot No. 56, 54, 53, 25, 26, 28 and 10 of Naudiha village, Plot No. 01, 1059, 1065, 1191, 1067, 1069, 1097, 1117 of Koed village, plot no. 235, 236, 237, 256, 313,275, 289, 287, 476 of Soparam village, Plot No. 33, 23, 24, 34, 33 of Banalat village, Plot No. 309, 311,312, 313, 954, 955, 965, 963, 962, 961, 968, 969, 970, 971, 972, 976, 977, 978, 982, 983, 984, 985, 986, 988, 989, 990, 991, 992, 993, 994, 997, 998, 999, 995, 989, 988, 987, 986, 985, 983, 981, 980, 979, 978, 977, 976, 972, 971, 970, 969 and 967 of Soparam village, Plot No. 1126 and 70 of Koed village, Plot No. 312, 207, 208, 209, 210, 212, 217, 197, 196, 192, 290, 289(nalla) of Naudiha village and meets at point 'D'.

D-E-F-G

Line passes through plot No. 289 of Naudiha village, Plot No. 807 of Honhe village, Acquisition boundary line of Amrapali, S.O. No. 1381, dated 10.05.2003 and meets at point 'G'

सीमित्र सिंह SOUMITRA SINGH उप महाग्रवंधक/विभागाध्यक्ष (वन एवं पर्या०) रति सीठ एलठ, राँची Dy. GM/HOD (Env. & Forest) C.C.L., Ranchi

Project Officer Amrapali OCP M-A Area CCI

8	THE GAZETTE OF DIDIA							
G-H-I-J	THE GAZETTE OF INDIA : EXTRAORDINARY [PART II—SEC. 3] - Line passes through centre line of Barki nadi in Binglat village, Plot No. 689, 487, 488, 473, 580, 593, 315, 321, 320, 263, 261, 133, 138, 139, 140, 47, 48, 44, 43, 42, 4 Serendag village, Plot No. 741, 742, 809, 803, 796, 795, 791, 789, 787, 785, 784, 776, 8 469, 468, 467, 466, 465, 827 of Kasiadih village, Plot No. 846, 139,138, 135, 130, 131, 1 127, 126, 118, 116,113, 108, 105, 94, 76, 69, 75, 73, 69, 870, 869, 867, 864, 291, 415, 8 863, 40 and 289(centre line of Mangardaha Nadi) of Honhe village and meets at point 'J'.							
J-K-L-A	 Line passes through Plot No. 289 (centre line of Mangardaha Nadi), 290, 190, 192, 196, 197, 198, 199, 200, 201, 203, 204, 188 of Naudiha village, Plot No. 70 of Koed village, Plot No. 188, 167, 166, 165, 164, 162, 161, 119, 123, 114, 111, 64, 63, 62, 61 and 56 of Naudiha village and meets at starting point 'A'. 							
	Block - B							
L-M-N-O-P	 Line starts from Point 'L' and passes through Plot No. 02 (centre line of Domuhan Nadi), 3, 5, 7, 17, 74, 73, 72, 75, 76, 78, 81, 82, of Hechabalia village, Plot No. 191,192, 284, 281, 277, 276, 251, 267, 265, 264, 309, 314, 313, 1038, 1037, 999, 997, 1001, 1002, 1003, 1004, 1006, 1007, 1008, 1010, 966, 967, 968, 969, 935, 934, 933, 926, 907, 906, 886, 875, 874, 1706, 1833 (centre line of Saradhu Nalla) of Speedboorthy 							
-Q-R-S	 1706, 1833 (centre line of Saradhu Nalla) of Saradhu village and meets at point 'P'. Line passes through Plot No. 1833 (centre line of Saradhu Nalla), Plot No. 01, 02, 19, 28 of Masilong village, Plot No. 772, 771, 762, 770, 767, 777, 779, 778 of Kamta village and meets at point 'S'. 							
T-U-L	 Line passes through Plot No. 778, 742, 598, 597, 573, 572, 562, 238, 228, 225, 224, 223, 229 of Kamta village, 230(centre line of Nalla in Masilong village), 1664(centre line of Nalla in Saradhu village), Plot No. 1621 (centre line of Domuhan Nadi in Saradhu village), Plot No. 420 (center line of Domuhan nadi in Hechabalia village) and meets at starting point 'L'. 							
	[F. No. 43015/23/2017-LA&IR] VIVEK BHARADWAJ, Jt. Secy.							

S

RAKESH SUKUL Digitally signed by RAKESH SUKUL Date: 2017 09:02 13:20:32 +05:30

View of the termination of termination of the termination of termination







MAGADH AMRAPALI AREA AKASHDEEP BUILDING P.O-DAKRA , RANCHI, JHARKHAND CENTRAL COALFIELDS LIMITED (Govt. of India Undertaking)

> CCL /Website:http://www.ccl.gov.in

Dated: - 3 10/18

Ref. No.: - GM (M-A)/NO (F)/2018-19/

To,

The Circle Officer Tandwa

Sub: - Verification of the land schedule prepared at our end for application for diversion for Amrapali Railway Siding in Amrapali OCP.

Dear Sir,

The land schedule of following villages under your circle is attached herewith for verification at your end . The land is acquired under CBA (A&D) Act 1957 and the verification is required as we have to apply for diversion of forest land for Amrapali railway siding in Amrapali Project.

Village	Acquired Area(Ha)	Forest (Ha)	GMJJ (Ha)	GMK (Ha)	GMA (Ha)	Tenancy (Ha)
Binglat	13.00	13.00	0.00	0.00	0.00	0.00
Honhe	13.40	9.62	0.88	0.00	0.16	2.73
Pokla	8.49	8.49	0.00	0.00	0.00	0.00
Koed	13.12	6.07	2.74	0.32	0.24	3.75
Naudiha	11.15	2.66	1.46	0.22	0.00	6.71
Soparam	48.95	34.57	0.40	1.38	0.40	12.19
Serendag	38.98	26.57	0.59	3.49	0.00	8.32
Total in Ha	147.08	100.98	6.08	5.42	0.96	33.70

You are requested to do the needful at the earliest. Thanking you

Enclosure-As stated above

Magat

Yours faithfully

Project Officer Amrapali OCP M-A Area (CCL)

Copy to:-

- 1. HOD (E&F),CCL,Ranchi
- 2. General Manager, M-A Area
- 3. Project Officer, Amrapali OCP
| | | e Summary of | | | | |
|-----------|-----------|--------------|-----------|-----------|----------|-----------|
| Name of | Acqd | Forest | J.Jhari | GMK | GMA | Tenancy |
| Village | Area (۲۹) | Area (Ha) | Area (Ho) | Area (No) | Area(Ha) | Area (Ha) |
| SOPARAM | 48.95 | 34.57 | 0.40 | 1.38 | 0.40 | 12.19 |
| NAUDIHA | 11.15 | 2.66 | 1.56 | 0.22 | 0.00 | 6.71 |
| KOED | 13.12 | 6.07 | 2.74 | 0.32 | 0.24 | 3.75 |
| HONHE | 13.40 | 9.62 | 0.88 | 0.00 | 0.16 | 2.73 |
| POKLA | 8.49 | 8.49 | 0.00 | 0.00 | 0.00 | 0.00 |
| BINGLAT | 13.00 | 13.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SERENDHAG | 38.98 | 26.57 | 0.60 | 3.49 | 0.00 | 8.32 |
| TOTAL | 147.08 | 100.98 | 6.18 | 5.42 | 0.80 | 33.70 |

अंचल अधिकार. ट्रण्डवा

N Project Officer Amrapali OCP M-A Area (CCL)

Staff Officer (P&P) Magadh Amrapali Area (CCL)

Village- SOPARAM			AMRA						
CI VI III				In Ha					
No	No	Plot	Survey	Acqd	Forest	J.Jhari	GMK	GMA	Tenancy
1	117	No	Area	Area	Area	Area	Area	Area	Area
2	117	235P	43.30	11.56	11.56		0.00	0.00	0.00
3		236P	17.30	12.54	12.13		0.00	0.00	0.00
4	117	237P	18.21	5.74	5.74		0.00	0.00	0.00
_	69	256P	0.50	0.17	0.00		0.00	0.00	0.17
5	39	259	0.17	0.17	0.00		0.00	0.00	0.17
6	28	260	0.25	0.25	0.00			0.00	0.25
7	118	261	0.06	0.06	0.00		0.00	0.00.00.000	0.23
8	69	262P	0.24	0.12	0.00		0.00	0.06	
9	60	266P	0.20	0.00	0.00		0.00	0.00	0.12
10	28	269P	0.09	0.06			0.00	0.00	0.00
11	32	270	0.01		0.00		0.00	0.00	0.06
12	32	271	0.01	0.01	0.00		0.00	0.00	0.01
13	47	272		0.02	0.00		0.00	0.00	0.02
14	39		0.00	0.00	0.00		0.00	0.00	0.00
15	48	273	0.13	0.13	0.00		0.00	0.00	0.13
_		274	0.18	0.18	0.00		0.00	0.00	0.18
16	69	275P	0.20	0.11	0.00		0.00	0.00	0.11
17		287P	0.21	0.06	0.00		0.00	0.00	0.06
18	23	289P	0.16	0.05	0.00		0.00	0.00	0.05
19	14	290	0.01	0.01	0.00		0.00	0.00	0.01
20	1	299	0.30	0.30	0.00		0.00	0.00	0.30
21	1	300P	0.30	0.26	0.00		0.00	0.00	0.26
22	118	301	0.08	0.08	0.00		0.00	0.08	0.00
23	39	302P	0.15	0.05	0.00		0.00	0.00	0.05
24	32	303P	0.30	0.02	0.00		0.00	0.00	0.02
25	67	311P	0.32	0.12	0.00		0.12	0.00	0.00
26	48	312P	1.18	0.32	0.00		0.00	0.00	0.32
27	117	313P	19.22	5.14	5.14	0.40	0.00	0.00	0.00
28		476P	0.00	0.23	0.00		0.00	0.00	0.23
29	82	932	0.26	0.26	0.00		0.00	0.00	0.26
30	61	933	0.12	0.12	0.00		0.00	0.00	0.12
31	117	934	0.03	0.03	0.00		0.03	0.00	0.00
32		935	0.40	0.40	0.00		0.00	0.00	0.40
33	99	936	0.24	0.24	0.00		0.00	0.00	0.24
34	39	937	0.46	0.46	0.00		0.00	0.00	0.46
35	15	938	0.23	0.23	0.00		0.00	0.00	0.23
36	99	939	0.42	0.42	0.00		0.00	0.00	0.42
37	99	940	0.69	0.69	0.00		0.00	0.00	0.69
38	19	941	0.27	0.27	0.00		0.00	0.00	0.27
_		941	0.49	0.49	0.00		0.00	0.00	0.49
39	28 28	942	0.49	0.26	0.00		0.00	0.00	0.26
40			0.01	0.01	0.00		0.01	0.00	0.00
41	117	944	0.01	0.23	0.00	1	0.00	0.00	0.23
42	57	945	0.23	0.23	0.00		0.00	0.00	0.11
43	57	946 947	0.11	0.47	0.00		0.00	0.00	0.47
44	62	547	0.17	42.48	34.57	0.40	0.16	0.15	7.19

धिकारी अंचल - ट्युडवा

M Project Officer Amrapali OCP M-A Area (CCL)

Staff Officer (P&P) Magadh Amrapali Area (CCL)

SL	Khata	Plot	No24 That Survey	Acqd	Control of the local data was a second of the local data of the lo	In	CARDING STORE STORE STORE STORE	GMA	Tenancy
No	No	No	Area	Area	Forest	J.Jhari	GMK		Area
45	81	948	0.18	0.18	Area	Area	Area	Area	0.18
46	81	949	0.09	0.09			0.00		0.09
47	81	950	0.30	and the second sec			0.00		0.09
48	3	951	0.09	0.30			0.00		0.30
49	28	952	0.25	0.09			0.00		0.05
50	28	953	0.10	0.10			0.00		0.25
51	86	954	0.07	0.07	-		0.00		0.10
52	92	955	0.20	0.20			0.00		0.20
53	1	956	0.28	0.28			0.00		0.20
54	1	957	0.29	0.29			0.00		0.29
55	124	958	0.13	0.13			0.00		0.13
56	117	970	0.02	0.02			0.02		0.00
57	31	971	0.12	0.12			0.02		0.12
58	53	972	0.13	0.13			0.00		0.12
59		976	0.57	0.57			0.00		0.13
60	53	977	0.18	0.18			0.00		0.18
61	20	978	0.21	0.21			0.00		0.21
62	20	979	0.09	0.09			0.00		0.09
63	20	980	0.15	0.15			0.00		0.15
64	20	981	0.11	0.11			0.00		0.11
65	20	982	0.06	0.06			0.00		0.06
66	113	983	0.47	0.47			0.00		0.47
67	31	984	0.10	0.10			0.00		0.10
68	47	985	0.23	0.23			0.23		0.00
69	31	986	0.11	0.11	_		0.00		0.11
70	126	987	0.09	0.09			0.09		0.00
71	1	988	0.21	0.21			0.00		0.21
72	104	989	0.10	0.10			0.00		0.10
73	39	990	0.07	0.07			0.00		0.07
74	31	991	0.12	0.12		1	0.00		0.12
75	47	992	0.07	0.07			0.07		0.00
76	103	993	0.19	0.19			0.00	100	0.19
77	103	994	0.04	0.04			0.00	16	0.04
78	117	995	0.33	0.33			0.33		0.00
79	117	996	0.04	0.04	1		0.04		0.00
80	118	997	0.04	0.04			0.00	0.04	0.00
81	117	998	0.05	0.05			0.05		0.00
82	117	999	0.39	0.39			0.39		0.00
83	117	968P	0.66	0.20			0.00	0.20	0.00
65	Tota			6.47			1.22	0.25	5.00
-	Grand Tota			48.95	34.57	0.40	1.38	0.40	12.19

Village- SOPARAM Thana No.-24 Thana-TANDWA

अंचल अधिकारी टण्डवा

Project Officer Amrapali OCP M-A Area (CCL)

burne Staff Officer (P&P) Magadh Amrapali Area (CCL)

	Vhata	Village - I		Thana No32 , Thana-TANDWA					In Ha	
SL	Khata No	Plot	Survey	Acqd	Forest	J.Jhari	GMK	GMA	Tenancy	
No		No	Area	Area	Area	Area	Area	Area	Area	
1	68	10P	25.19	1.94	1.01	0.93	0.00		0.00	
2	62	25P	0.93	0.22		0.00	0.00		0.22	
3,	68	26P	0.13	0.08	-	0.00	0.08		0.00	
4	62	27P	0.17	0.17		0.00	0.00		0.17	
5	4	28	0.00	0.09		0.00	0.00		0.09	
6	49	29P	0.55	0.14		0.00	0.00		0.14	
8		31P	0.00	0.36		0.00	0.00	14	0.36	
9		32P	0.16	0.11		0.00	0.00	251	0.11	
11	33	51P	0.51	0.04		0.00	0.00		0.04	
12		52P	0.00	0.09		0.00	0.00	al.	0.09	
13	68	53P	4.25	1.45	1.08	0.36	0.00	100	0.00	
14	62	54P	0.30	0.08		0.00	0.00	100	0.08	
15	49	55P	0.24	0.20		0.00	0.00	1. (41)	0.20	
16	68	56P	13.35	0.10		0.10	0.00		0.00	
17	33	61P	0.56	0.03		0.00	0.00		0.03	
18	19	62P	0.34	0.03		0.00	0.00		0.03	
20	64	203P	0.35	0.05		0.00	0.00		0.05	
21	64	204P	0.21	0.03		0.00	0.00		0.03	
23	64	206P	0.23	0.23		0.00	0.00		0.23	
24	59	207P	0.39	0.34		0.00	0.00		0.34	
25	33	208P	0.69	0.55		0.00	0.00		0.55	
26		209P	0.00	0.30		0.00	0.00		0.30	
27	59	210P	0.34	0.34		0.00	0.00		0.34	
28		212P	0.00	0.35		0.00	0.00		0.35	
29	68	217P	0.09	0.02		0.00	0.02	and the	0.00	
30	68	211	0.02	0.02		0.00	0.00		0.02	
31		213P	0.00	0.20		0.00	0.00		0.20	
32		214P	0.00	0.01		0.00	0.00		0.01	
33		215P	0.00	0.16		0.00	0.00	2	0.16	
34	47	216P	0.99	0.83		0.00	0.00		0.83	
35		218	0.77	0.77		0.00	0.00		0.77	
36	18	219P	0.31	0.02	16	0.00	0.00		0.02	
37	46	220P	0.79	0.40		0.00	0.00		0.40	
38		222P	0.00	0.22		0.00	0.00		0.22	
39	46	223P	0.34	0.14	1	0.00	0.00		0.14	
-	63	223P	0.21	0.20		0.00	0.00		0.20	
40		239P	0.05	0.02		0.00	0.02		0.00	
41	68	239P 272P	1.20	0.02		0.00	0.09	16	0.00	
42	68	272P 290P	8.60	0.74	0.57	0.17	0.00	1	0.00	
43	68	290P	0.00	11.16	2.66	2.12	0.22		6.71	

अंचल अधिकारी टण्डवा

Project Officer Amrapali OCP M-A Area (CCL)

Staff Officer (P&P) Magadh Amrapali Area (CCL)

Village-KOED

Thana No.-31 Thana-TANDWA

	11051	Inana-TAND	AWQ		In Ha					
SL	Khata	Plot	Survey	Acqd	Forest	J.Jhari	GMK	GMA	Tenancy	
10	No	No	Area	Area	Area	Area	Area	Area	Area	
1	115	1P	0.00	0.72	0.72	0.00	0.00	0.00	0.00	
2	115	62P	0.85	0.12	0.00	0.00	0.12	0.00	0.00	
3		63	0.00	0.22	0.00	0.00	0.00	0.00	0.22	
4		64P	0.00	0.28	0.00	0.00	0.00	0.00	0.28	
5	106	65P	0.07	0.02	0.00	0.00	0.00	0.00	0.02	
6	97	67P	0.00	0.16	0.00	0.00	0.00	0.00	0.16	
7		68	0.00	0.12	0.00	0.00	0.00	0.00	0.12	
8		69	0.00	0.10	0.00	0.00	0.00	0.00	0.10	
9	115	70P	0.00	4.21	4.01	0.20	0.00	0.00	0.00	
10	115	1059P	6.27	0.72	0.54	0.18	0.00	0.00	0.00	
11		1065P	0.00	0.28	0.00	0.00	0.00	0.00	0.28	
12		1067P	0.13	0.02	0.00	0.00	0.00	0.00	0.02	
13	2	1069P	0.31	0.17	0.00	0.00	0.00	0.00	0.17	
14		1070P	0.38	0.07	0.00	0.00	0.00	0.00	0.07	
15	3	1071P	0.28	0.02	0.00	0.00	0.00	0.00	0.02	
16		1076P	0.00	0.04	0.00	0.00	0.00	0.00	0.04	
17		1077	0.16	0.16	0.00	0.00	0.00	0.00	0.16	
18	115	1078P	0.66	0.20	0.00	0.00	0.20	0.00	0.00	
19		1079P	0.00	0.24	0.00	0.00	0.00	0.00	0.24	
20	104	1081P	0.20	0.00	0.00	0.00	0.00	0.00	0.00	
21		1082P	0.18	0.16	0.00	0.00	0.00	0.00	0.16	
22	116	1088P	0.32	0.03	0.00	0.00	0.00	0.03	0.00	
23		1091P	0.00	0.12	0.00	0.00	0.00	0.00	0.12	
24	100	1092P	0.51	0.25	0.00	0.00	0.00	0.00	0.25	
25		1093P	0.00	0.06	0.00	0.00	0.00	0.00	0.06	
26	3	1094P	0.55	0.02	0.00	0.00	0.00	0.00	0.02	
27	100	1095 P	0.18	0.17	0.00	0.00	0.00	0.00	0.17	
28		1096	0.00	0.40	0.00	0.00	0.00	0.00	0.40	
29	115	1097P	10.40	2.24	0.00	2.24	0.00	0.00	0.00	
30		1100P	0.00	0.13	0.00	0.00	0.00	0.00	0.13	
31		1115P	0.00	0.12	0.00	0.00	0.00	0.00	0.12	
32	-	1116P	1.00	0.02	0.00	0.02	0.00	0.00	0.00	
33		1117P	0.65	0.21	0.00	0.00	0.00	0.21	0.00	
34		1118P	0.00	0.80	0.80	0.00	0.00	0.00	0.00	
35		1120P	0.05	0.02	0.00	0.00	0.00	0.00	0.02	
36		1193P	0.32	0.10	0.00	0.10	0.00	0.00	0.00	
37		1194P	0.00	0.16	0.00	0.00	0.00	0.00	0.16	
38		1195	0.00	0.09	0.00	0.00	0.00	0.00	0.09	
40		1191	0.00	0.11	0.00	0.00	0.00	0.00	0.11	
40		1101	Total	13.12	6.07	2.74	0.32	0.24	3.7	

अंचल अधिकारी टण्डवा

Project Officer Amrapali OCP M-AArea (CCL)

1ame Staff Officer (P&P) Magadh Amrapali Area (CCL)

	e-HONHE		In Ha						
SL		Thana-TAND	Survey	Acqd	Forest	J.Jhari	GMK	GMA	Tenancy
No	Khata No	Plot	Area	Area	Area	Area	Area	Area	Area
1	84	No		0.08	0.00	0.00		0.08	0.00
2	84	807P	2.63		0.00	0.00		0.05	0.00
3	61	557P	0.45	0.05		0.00		0.00	0.04
4	47	571P 570P	0.24	0.04	0.00	0.00		0.00	0.02
5	84		0.10	0.02	0.00			0.03	0.00
6	4	572P	2.23	0.03	0.00	0.00		0.00	0.06
7	2	535P	0.62	0.06	0.00	0.00			0.08
8	84	532P	0.23	0.08	0.00	0.00		0.00	0.03
9	2	575P	0.11	0.03	0.00	0.00		0.00	
10		526P	0.28	0.08	0.00	0.00		0.00	0.08
_	9	525P	0.20	0.06	0.00	0.00		0.00	0.06
11	84	524P	0.08	0.07	0.00	0.00		0.00	0.07
12	2	523P	0.31	0.06	0.00	0.00		0.00	0.06
13	84	522P	0.15	0.02	0.00	0.00		0.00	0.02
14	19	615P	0.14	0.09	0.00	0.00		0.00	0.09
15	14	616P	0.17	0.16	0.00	0.00		0.00	0.16
16		722	0.06	0.05	0.00	0.00		0.00	0.06
17	1	630P	0.32	0.08	0.00	0.00		0.00	0.08
18	30	623P	0.11	0.02	0.00	0.00		0.00	0.02
19	12	624P	0.17	0.12	0.00	0.00		0.00	0.12
20	19	625P	0.96	0.18	0.00	0.00		0.00	0.18
21	30	629P	0.53	0.32	0.00	0.00		0.00	0.32
22	30	628P	0.20	0.12	0.00	0.00		0.00	0.12
23	84	649P	5.18	0.76	0.49	0.28		0.00	0.00
24	30	312P	1.23	0.08	0.00	0.00		0.00	0.08
25	84	350P	14.37	4.37	4.37	0.00		0.00	0.00
26	84	274P	31.06	2.27	1.86	0.40		0.00	0.00
27	53	256P	4.05	0.38	0.00	0.00		0.00	0.38
28	44	259P	1.04	0.32	0.00	0.00		0.00	0.32
29		295P	0.00	0.18	0.00	0.00		0.00	0.18
30		194P	2.50	0.45	0.25	0.20		0.00	0.00
31	-	855P	0.00	1.01	1.01	0.00		0.00	0.00
32		191P	0.00	1.25	1.25	0.00		0.00	0.00
33		190P	0.00	0.33	0.33	0.00		0.00	0.00
34		189P	0.00	0.06	0.06	0.00		0.00	0.00
35		573	0.00	0.04	0.00	0.00		0.00	0.04
36		514	0.00	0.03	0.00	0.00		0.00	0.03
			Total	13.40	9.62	0.88		0.16	2.73



Project Officer Amrapali OCP M-A Area (CCL)

1amen Staff Officer (P&P) Magadh Amrapali Area (CCL)

1									
Vill	age-POKLA		The						
SL	Khata	Plot	Thana No.	-34 Thana-T	ANDIA				
NO	No	No		Acqd			In	Ha	
1	50		Area	Area	Forest	J.Jhari	GMK	GMA	Tenancy
2	50	833		1.82	Area	Area	Area	Area	Area
3	50	855		3.51	1.82	a la la composition de la comp			
3	50	893			3.51	12			
			Total	3.16	3.16				
			. o tui	8.49	8.49				
Villa	ge-BINGL	AT	Thomas						
SL	Khata	Plot	mana No	49 Thana-TA	NDWA				
No	No	No	Survey	Acqd	Forest	J.Jhari	GMK	GMA	Tonon
1	46		Area	Area	Area	Area	and the second sec		Tenancy
2	46	1P	148.93	9.83	9.83	Aica	Area	Area	Area
-	40	2P	54.43	3.16	3.16				
			Total	13.00	13.00				
0000255			100,000,000		13.00				
Villa	ge-SEREN	DAG		Thana No. 4	6 Thana-TAN	D 1444			
SL	Khata	Plot	Survey	Acqd			the second		1
No	No	No	Area	2014 Contract (Forest	J.Jhari	GMK	GMA	Tenancy
1		195P	0.00	Area	Area	Area	Area	Area	Area
2	12	194	0.00	10.09	9.84	0.25			
3	5	193		0.40		_			0.40
4	41		0.00	0.24		-			0.24
5	41	192	0.32	0.32					0.32
_		191	0.00	0.28					0.28
6	10	190P 182P	0.00	0.02					0.02
8	1,9	182P 184P	0.53	0.20					0.20
9	31	183	0.00	0.07					0.07
10	38	185	0.00	0.15					0.24
11	24	186	0.00	0.11					0.15
12	24	180	0.00	0.05					0.11
13		187	0.00	0.25					0.05
14	49	188	0.00	3.49			3.49		0.25
15	19	177P	0.16	0.15			5.49		0.00
16	49	176P	0.00	0.05		-			0.15
17	8	237P	0.17	0.03					0.05
18	8	236P	0.45	0.10				11	0.03
_				and the second second second second				- 11 A	0.10
19	8	235	0.09	0.08				and the second	0.08
20	7	234P	0.19	0.08					0.08
21	13	233P	0.13	0.14					0.14
22	31	225P	0.49	0.18			12.00		0.18
23		226	0.00	0.06			12	01	0.06
24		227	0.00	0.04					0.04
25	19	228	0.05	0.05		_			0.05
26	19	229	0.04	0.04			19		0.03
27	48	230	0.00	0.15				1.2.1	0.04
28	19		0.12	0.12				17 Filler (1844)	
20	19	251	0.12		9.84	0.25	2 40		0.12 3.63
20	19	231		17.21	9.84	0.25	3.49	107315	

अंचल आधकारा रण्डवा

Project Officer Amrapali OCP M-A Area (CCL)

Staff Officer (P&P) Magadh Amrapali Area (CCL)

Scanned by CamScanner

Village-SERENDAG

Thana No.-46 Thana-TANDWA

SL	Khata	Plot	Cumun				In Ha		-
No	No	No	Survey	Acqd	Forest	J.Jhari	GMK	GMA	Tenancy
29	19	232	Area	Area	Area	Area	Area	Area	Area
30		223	0.06	0.06				Alea	0.06
31	13	224	0.00	0.28					0.08
32		221	0.04	0.04			Contra contra		0.28
33	11	283P	0.00	0.19					0.19
34		287P	0.00	0.01	_				0.01
35	48	287P	0.00	0.02					0.02
36	49	289P	0.15	0.10			_	1	0.10
37	19		1.04	0.58					0.58
38	41	290P	0.32	0.05					0.05
39	41	291P	0.13	0.03					0.03
40		292P	0.28	0.03			_		0.03
41	5	220	0.01	0.01					0.01
41		219	0.17	0.17					0.17
	5	218	0.02	0.02					0.02
43	5	217	0.00	0.00					0.00
44	5	216	0.05	0.05	1				0.05
45	5	215	0.06	0.06					0.06
46	5	214	0.01	0.01					0.01
47	5	213	0.18	0.17					0.17
48	10	212	0.08	0.09					0.09
49	28	211	0.15	0.15	1				0.15
50	3	210	0.19	0.19					0.19
51	38	209	0.09	0.09				6	0.09
52	38	208	0.08	0.08				1	0.08
53	10	207	0.38	0.38			1		0.38
54	10	206	0.02	0.02					0.02
55	23	205	0.25	0.25					0.25
56		204	0.00	0.19			1		0.19
57		203	0.00	0.18					0.18
58	15	202	0.00	0.30	141			1	0.30
59	12	201	0.00	0.21					0.21
60	13	200	0.15	0.15	2 T			1	0.15
61	41	199	0.12	0.12		1			0.12
62		198	0.00	0.01			6		0.01
63	9	197	0.28	0.28			- 285		0.28
64	49	196	0.12	0.12			14		0.12
65	49	683	0.00	17.07	16.73	0.34			0.00
	Total			21.77	16.73	0.34		r	4.69
	Grand To			38.98	26.57	0.59	3.49		8.32

वकारः

Project Officer Amrapali OCP M-A Area (CCL)









