ARIGADA (ARGD) PH-I — SIGNAL INTERLOCKING PLAN

SPECIAL INSTRUCTION / APPROVED SPECIAL INSTRUCTION

SL.NO.	INSTRUCTION	ISSUED BY	AUTHORITY	REMARKS
1.	UNDER THE PROVISION OF GR PARA 3.47 FOR TAKING 'OFF' SIGNALS FOR MORE THAN ONE TRAIN AT A TIME FOR SIMULTANEOUS RECEPTION OF TRAINS. THE INTERLOCKING & THE LAYOUT OF ARIGADA (ARGD) PERMITS AND SHALL BE DONE AS PER DETAILS OF PROVISION MENTIONED IN SWR.	COM/ECR/ HJP		TO BE OBTAINED
2.	UNDER THE PROVISION OF G.R. PARA 3.04(2) PLACING OF FIXED SIGNAL ON RIGHT HAND SIDE FOR S-9.	PCOM/ECR/ HJP		TO BE OBTAINED

CONDONATION PARTICULARS OF EXISTING INFRINGING GRADIENTS

SL. NO.	SECTION	LOCATION IN KILOMETERAGE FROM	TO	NAME OF STRUCTURE INFRINGING	RAILWAY BOARD/ CRS CONDONATION PARTICULARS
1.	ARGD-RRME	96.823	97.312	1 IN 285 (C/C UP/DN MAIN LINE)	CRS CONDONATION



APPROVED BY / COUNTER SIGNED BY / CHECKED BY / DRAWN BY

APPROVED BY	COUNTER SIGNED BY	
PRAMOD KUMAR (PRAMOD KR) CCE/ECR/HJP	Dilip Kumar (DILIP KUMAR) CTM/HJP	Manish Sharma (MANISH SHARMA) FOR COM/ECR/HJP

CHECKED BY		
PANKAJ KUMAR (PANKAJ KUMAR) Sr. DOM/DHN	AJIT KUMAR (AJIT KUMAR) Sr. DSTE (DHN)	Vikram Ram (VIKRAMA RAM) DY.CSTE/DHN

CHECKED BY	DRAWN BY	
MD Nehal Shams (NEHAL SHAMS) DSTE/CON/HMX	A.K.S KUSHWAHA (A.K.S KUSHWAHA) ASTE/CON/HMX	Shimala Kumari (SHIMLA KUMARI) ESE/ECR/CON/HMX; Om Prakash Gond (O.P. GOND) SSE/ECR/CON/HMX

SIGNAL SPECIFIC NOTES - II

8. INTERLOCKED LC GATE DETAILS: 34/SPL/E
(a) SLIDING BOOM PROVIDED AT L.C. GATE NO. 34/SPL/E AT Km. 96/6-7.
(b) CONTROL CUM INDICATION PANEL PROVIDED IN GATE LODGE OF L.C. GATE NO. 34/SPL/E FOR OPERATION OF SIGNALS.
9. COMMUNICATION DETAILS:
TELEPHONE COMMUNICATION IS PROVIDED SM'S ROOM WITH GATE NO. 34/SPL/E & BRKA AVOIDING SIDING POINT: KL-NIL
10. DETAILS OF SIGNAL ROUTES HAVING ALTERNATE OVERLAPS:

SIGNAL NO.	LEADING TO	DETAILS OF OVERLAP
S01	ROAD 1(UN-1)	UP TO 9T TOWARDS SAND HUMP WHEN PT 56 'N'
S01	ROAD 2(UN-2)	UP TO 56BT WHEN POINT 58 'R', AXC-2, L-C ST(ARGD) CLEAR
S01	ROAD 3	UP TO 61BT WHEN POINT 58 'N', AXC-2, L-C ST(ARGD) CLEAR
S01	ROAD 4(UN-4)	UP TO 9T TOWARDS DEAD END WHEN PT 56 'R'

SIGNAL NO.	LEADING TO	DETAILS OF OVERLAP
S03	ROAD 1(UN-1)	UP TO 9T TOWARDS SAND HUMP WHEN PT 56 'N'
S03	ROAD 2(UN-2)	UP TO 61BT WHEN POINT 58 'N'
S03		UP TO 56BT WHEN POINT 58 'R'

SIGNAL NO.	LEADING TO	DETAILS OF OVERLAP
S12	ROAD 1(UN-1)	UP TO 9T TOWARDS SAND HUMP WHEN POINT 53 'N'
S12	ROAD 2(UN-2)	UP TO 04T WHEN POINT 52 'N'
S12	ROAD 3(UN-3)	UP TO 02T WHEN POINT 51 'N' & 52 'N'

SIGNAL NO.	LEADING TO	DETAILS OF OVERLAP
S16	ROAD 1(UN-1)	UP TO 9T TOWARDS SAND HUMP WHEN POINT 53 'N'
S16		UP TO 04T WHEN POINT 52 'N'
S16	ROAD 2(UN-2)	UP TO 02T WHEN POINT 52 'N'

11. 60 SEC. TIME DELAY PROVIDED FOR C-01, C-03, C-12 & C-16.
12. ALL ANGLE OF X-INGS ARE 1 IN 12 EXCEPT AS MENTIONED.
13. SIGNAL OVERLAP-120m (MIN) AND BLOCK OVERLAP-180m (MIN) IS TAKEN.
14. I.C. GATE NO.-34/SPL/E.
15. TWO CPU'S, VDU (ONE SET STAND BY) PROVIDED FOR VDU OPERATION IN ASM/SM ROOM AND ONE VDU (ONE VDU) PROVIDED IN MAINTENANCE ROOM.
16. CONTROL TELEPHONE PROVIDED AT VDU ROOM.
17. ROAD SIGNAL SHALL DISPLAY RED ASPECT WHEN SLIDING BOOM IS USED TO CLOSE THE ROAD TRAFFIC FOR GATE NO. 34/SPL/E.
18. DEAD APPROACH LOCKING PROVIDED FOR INTERLOCKED GATES OF BLOCK SECTION WITH 60 SEC. TIME DELAY FOR L.C. 34/SPL/E.
19. V.D.U. DETAILS:

MAIN SIGNAL - 01, 03, 04, 05, 06, 07, 08, 09, 10, 12, 16
CALLING - ON SIGNAL - C-01, C-03, C-12, C-16
SHUNT SIGNAL - 101, 103, 105, 107, 109, 110, 112, 116, 117, 118, 119, 201, 203, 205
POINT - 51, 52, 53, 56, 57, 58, 60, 61
CRANK HANDLE CONTROL - CH-1, CH-2, CH-3, CH-6, CH-7, CH-8, CH-10, CH-11
DEAD SHUNT SIGNAL - 9(b)
DEAD SIGNAL - S9

20. L-XING DETAILS BETWEEN RRME - ARGD SECTION

SL. NO	L.C. NO.	KM	MAN/UM	CLASS	TVU	INTERLOCKED/NON INTERLOCKED	REMARKS
1	34/SPL/E	96/6-7	M	SPL	186616/04-19		
2	33/B(T)	92.583	M	B	27136/04-19	RRME	

L-XING DETAILS BETWEEN ARGD- BRKA VIA AVOIDING SECTION

SL. NO	L.C. NO.	KM	MAN/UM	CLASS	TVU	INTERLOCKED/NON INTERLOCKED	REMARKS
NIL							

21. STANDARD COLOUR SCHEME NEEDS TO BE ADOPTED FOR DEPICTING INTENDED ALTERATIONS IN THE SSP.
i) FOR NEW WORK - RED COLOUR.
ii) FOR DELETION WORK - GREEN COLOUR.
22. TRACK IN FALLING - SHOWN IN SIP.

SIGNAL SPECIFIC NOTES - I

1. NUMBER GRID:

FUNCTIONS	LOCATION & DIRECTION	RANGE	SPARES
SIGNAL	RIGHT TO LEFT	01-09 & 17-10 (ODD NUMBERS)	11, 13, 15 to 29
	LEFT TO RIGHT	(02-16) (EVEN NUMBERS)	14 & 18 to 30
SHUNT SIGNAL	RIGHT TO LEFT	201-205 (ODD NUMBERS)	207 to 259
	LEFT TO RIGHT	(EVEN NUMBERS)	202 to 260
POINTS	RIGHT HALF	51, 52, 53	54
	LEFT HALF	56, 57, 58, 60, 61	55, 59
SIDING POINTS	RIGHT HALF	NIL	-
	LEFT HALF	NIL	-
LC GATE	RIGHT HALF	34/SPL/E	-
	LEFT HALF	NIL	-

2. BLOCK WORKING:

SECTION	TYPE OF BLOCK WORKING	BLOCK INSTRUMENT TYPE	BPAC	REMARKS IF ANY
ARIGADA - RANCHI ROAD	ABSOLUTE BLOCK	UFSBI-DL	HASSDAC	LOCATED AT SM ROOM
ARIGADA - KUJU	ABSOLUTE BLOCK	UFSBI-SL	HASSDAC	LOCATED AT SM ROOM
ARGD - BRKA	ABSOLUTE BLOCK			
ARGD-BRKA AVOIDING	ABSOLUTE BLOCK			

3. DETAILS OF TRACK CIRCUITS:

TRACK CIRCUIT NOS.	TYPE OF TRACK CIRCUITS	REMARKS IF ANY
C-1T, 1T, 02T, C-3T, 3AT, 04T, 05T, 06T, 07T, 08T, 9T, 10T, 01T, 01AT, 01CT, C-12T, C-16T, 51AT, 51BT, 52AT, 57BT, 58AT, 58BT, 60T, 61AT, 61BT	DC SINGLE RAIL TRACK CIRCUIT	

4. DETAILS OF AXLE COUNTERS:

AXLE COUNTER SECTION	TYPE OF AXLE COUNTER	TYPE OF RESETTING	LOCATION OF RESETTING BOX	LOCATION OF EVALUATOR BOX
ARGD-RRME (UP)	HASSDAC	PREPARATORY	AT RANCHI ROAD STN.	AT ARIGADA STN.
ARGD-RRME (DN)	HASSDAC	PREPARATORY	AT ARIGADA STN.	AT ARIGADA STN.
ARGD-KUJU (UP)	HASSDAC	PREPARATORY	AT KUJU STN.	AT KUJU STN.
ARGD-KUJU (DN)	HASSDAC	PREPARATORY	AT KUJU STN.	AT ARIGADA STN.

5. DETAILS OF MOTOR OPERATED POINTS WITH CRANK HANDLE GROUPING:

GROUP	POINTS	TYPE OF POINT MACHINE	CH EKT KEPT AT
CH1	51	IRS POINT MACHINE	SM ROOM
CH2	52	IRS POINT MACHINE	SM ROOM
CH3	53	IRS POINT MACHINE	SM ROOM
CH6	56	IRS POINT MACHINE	SM ROOM
CH7	57	IRS POINT MACHINE	SM ROOM
CH8	58	IRS POINT MACHINE	SM ROOM
CH10	60	IRS POINT MACHINE	SM ROOM
CH11	61	IRS POINT MACHINE	SM ROOM

6. DETAILS OF SIDING POINTS:- NIL
i. POINT IS LOCALLY OPERATED WITH SUCCESSIVE KEY RELEASE ARRANGEMENT
ii. SIDING POINT KEY CONTROL BY SM FOR OPERATION
iii. SIDING POINT KEY IS EXTRACTED FROM EKT LOCATED AT SM ROOM
iv. THIS KEY IS INSERTED TO UNLOCK POINT
v. KEY IS INSERTED AT TRAP POINT IS SET TO REVERSE
vi. SIDING IS READY FOR SHUNTING

7. SIDING POINT DETECTION TABLE(Sint)

SIDING POINT NO.	PROVED IN NORMAL/REVERSE	PROVED IN SIGNAL NO.	LEADING TO
NIL			

GENERAL NOTES

1. THIS PLAN IS BASED ON SIGNAL INTERLOCKING PLAN NO -NIL.
2. THIS PLAN IS BASED ON ENGINEERING SCALE PLAN (ESP) NO: Y-38-2020
3. THIS PLAN SUPERSEDES SIP/DHN NO. ECR/SIP/DHN/257/2019.
4. THIS STATION IS LOCATED IN 25 KV AC ELECTRIFIED SECTION.
5. ALL THE STOP SIGNALS ARE LOCATED CLEAR OFF NEUTRAL SECTION.
6. VISIBILITY OF NEW SIGNALS TO BE ENSURED BY SIGNAL SIGHTING COMMITTEE SUBJECT TO LIGHTING OF SIGNALS.
7. SYSTEM OF WORKING IS ABSOLUTE BLOCK SYSTEM.
8. LC GATE - 34/SPL/E.
9. NO APPROACH WARNING IS PROVIDED FOR THE LC GATE
10. ELECTRICAL LIFTING BARRIER ARE PROVIDED FOR LC GATE NO. 34/SPL/E AND BOOM LOCKING PROVIDED.
11. THE HPL IS PROVIDED FOR SIDING POINT - NIL
12. ALL THE WORKS ARE CARRIED OUT AS PER THE PROVISIONS IN THE SEM. G&SR AND OTHER POLICY LETTERS.
13. THE NEW EQUIPMENT IS PLACED AS PER SITE SURVEY.
14. RECORD OF DESIGN DECISIONS ARE DETAILED IN SCHEME PLAN DESIGN LOG : -NIL
15. FOULING POINTS ARE REQUIRED TO BE MEASURED ON SITE.
16. SIGNAL AND SIGNAGES ARE IN ACCORDANCE WITH G&SR AND SEM.
17. THE CROSS OVER POINTS ARE OPERATED BY PARALLEL OPERATION.
18. POINT ZONE TELEPHONES ARE PROVIDED AT TOP POINTS:- NIL
19. NON-STANDARD SIGNALS USED ON THE SCHEME ARE :- NIL
20. LIST OF ASSUMPTION BEING MADE WHILE SCHEME PLAN WAS IN PRODUCTION ARE
(i) ....
(ii) ....
21. SCHEME PLAN SPECIFIC ISSUES WHICH ARE STILL TO BE RESOLVED
(i) ....
(ii) ....
22. TYPE OF INTERLOCKING : CENTRALISED ELECTRONIC INTERLOCKING
23. REFER INTERLOCKING CONTROL CHART FOR DETAILS OF ALL SIGNAL ROUTES.
24. COMPLETION DETAILS TO BE INCORPORATED AFTER COMMISSIONING THE WORKS SUITING TO SITE CONDITIONS FOR GENERATING SIGNAL INTERLOCKING PLAN (RECORD UPDATED).
25. SPECIAL NOTES RELATED TO SPECIFIC RAILWAY STATION LIKE SPT, EMERGENCY GATE KEY etc.
26. ALL MAIN SIGNALS, SUBSIDIARY SIGNALS, GROUND SIGNALS, REPEATER SIGNALS, STANDARD AND MINIATURE INDICATORS, POSITION LIGHT JUNCTION INDICATORS ARE OF LED TYPE.
27. THIS SIP HAS BEEN MADE IN CONNECTION WITH DOUBLING BETWEEN RANCHI ROAD - PATRATU IN CIC SECTION.
28. PB. ITEM NO. 46, YEAR 2020-2021.
29. AXLE COUNTER PROVIDED ON BRIDGE NO.236 (OVER DAMODAR RIVER) FOR CLEARANCE OF TRACK.
30. CONTINUOUS TRACK CIRCUIT/AXLE COUNTER PROVIDED BETWEEN BRKA-AVOIDING & ARGD.
31. INTER CABIN SLOTTING PROVIDED BETWEEN BRKA-AVOIDING - ARGD. BRKA AVOIDING (ARGD N/CABIN)

SLOT DETAILS

1. BRKA AVOIDING SLOT GRANTED TO ARIGADA FOR DESPATCH FROM ARIGADA TO BRKA AVOIDING.
A FOR UP DEPARTURE OF S-05, S-07, S-09 OF ARIGADA VIA 2ND TWIN SINGLE LINE
B FOR UP DEPARTURE OF S-07, S-09 OF ARIGADA VIA 1ST TWIN SINGLE LINE
C FOR UP DEPARTURE OF SHUNT SIGNAL SH-105, SH-107, SH-109 & SH-205 OF ARIGADA VIA 2ND TWIN SINGLE LINE
D FOR UP DEPARTURE OF SHUNT SIGNAL SH-107, SH-109, SH-117 & SH-119 OF ARIGADA VIA 1ST TWIN SINGLE LINE
2. ARIGADA SLOT GRANTED TO BRKA AVOIDING FOR DESPATCH FROM BRKA AVOIDING TO ARIGADA.
① SLOT FOR DEPARTURE FROM S-04, S-10, S-12 & S-14 VIA 2nd TWIN SINGLE LINE.
② SLOT FOR DEPARTURE FROM S-04, S-10, S-12, S-14 VIA 1st TWIN SINGLE LINE.
③ SLOT FOR DEPARTURE FROM C-04 VIA 2nd TWIN SINGLE LINE.
④ SLOT FOR DEPARTURE FROM C-04 VIA 1st TWIN SINGLE LINE.
⑤ SLOT FOR DEPARTURE FROM SH-110, SH-112, SH-114 VIA 2nd TWIN SINGLE LINE.
⑥ SLOT FOR DEPARTURE FROM SH-110, SH-112, SH-114 VIA 1st TWIN SINGLE LINE.

APPROVAL PANEL

ALT	DESCRIPTION	REFERENCE	CHECKED BY	COUNTER SIGNED BY	APPROVED BY	CRS SANCTION NO. & DATE	DATE OF COMM.
A	COMPLIANCE OF CRS OBSERVATION	(1) TO SUIT ESP DRG NO:- Y-27-2021. (2) VIDE CRS LETTER NO:- 16/A/8/XIII/21/1305 Dt 21.12	[illegible]	[illegible]	[illegible]		
B	COMPLIANCE OF ESP.	TO SUIT ESP DRG-NO-21/2020 (SH-1/2)(ALT-1)	[illegible]	[illegible]	[illegible]		
C	PROVISION OF S-9 RIGHT HAND SIDE	VIDE DY.CSTE/ADHN LETTER NO-S&C/CON/DHN/ARGD DT-26-03-21.	[illegible]	[illegible]	[illegible]		
D	COMPLETION DRAWING MADE (NO CHANGE)		[illegible]	[illegible]	[illegible]		

THIS LINE IS ONLY PRINTED TO SCALE IF THIS LINE MEASURES 100MM.

C.R.S. SANCTION NO. CRS/ER/DHN/ARGD/E1/219	SCALE (1:1000)	E.I.	
DATE :- 12-06-21	LONGITUDINAL : 1CM = 10M	WITH CENTRAL OPERATION	
COMPLETED ON 02-08-21	TRANSVERSE : 1CM = 5 M	SIGNAL INTERLOCKING PLAN	
CLASS B	SIGNAL INTERLOCKING PLAN	ZONE	ECR
STANDARD OF INTERLOCKING	ECR/SIP/DHN/257/2020.	DIVISION	DHN
SCALE LONGITUDINAL 1CM=10M VERTICAL 1CM=5M		STATION	ARGD
	अरिगाडा ARIGADA (ARGD) PH-I		

DT- 27.10.20