

East Central Railway

No. ECR/S&T/DRG/Corres/2024

Office of
GM (S&T)/HJP
Date-24.12.2024

**CSTE/CON/North & South,
GM/S&T/RVNL/PATNA & RANCHI
GM (S&T) IRCON, Patna
Sr.DSTE/DNR, DDU, SEE, DHN & SPJ,
DY.CSTE/Works/DNR, DDU & DHN,
DY.CSTE/Project/HJP & DY.CSTE/RE,**

Sub:- Typical circuit diagram of mid section interlocked L.C.Gate in single line.

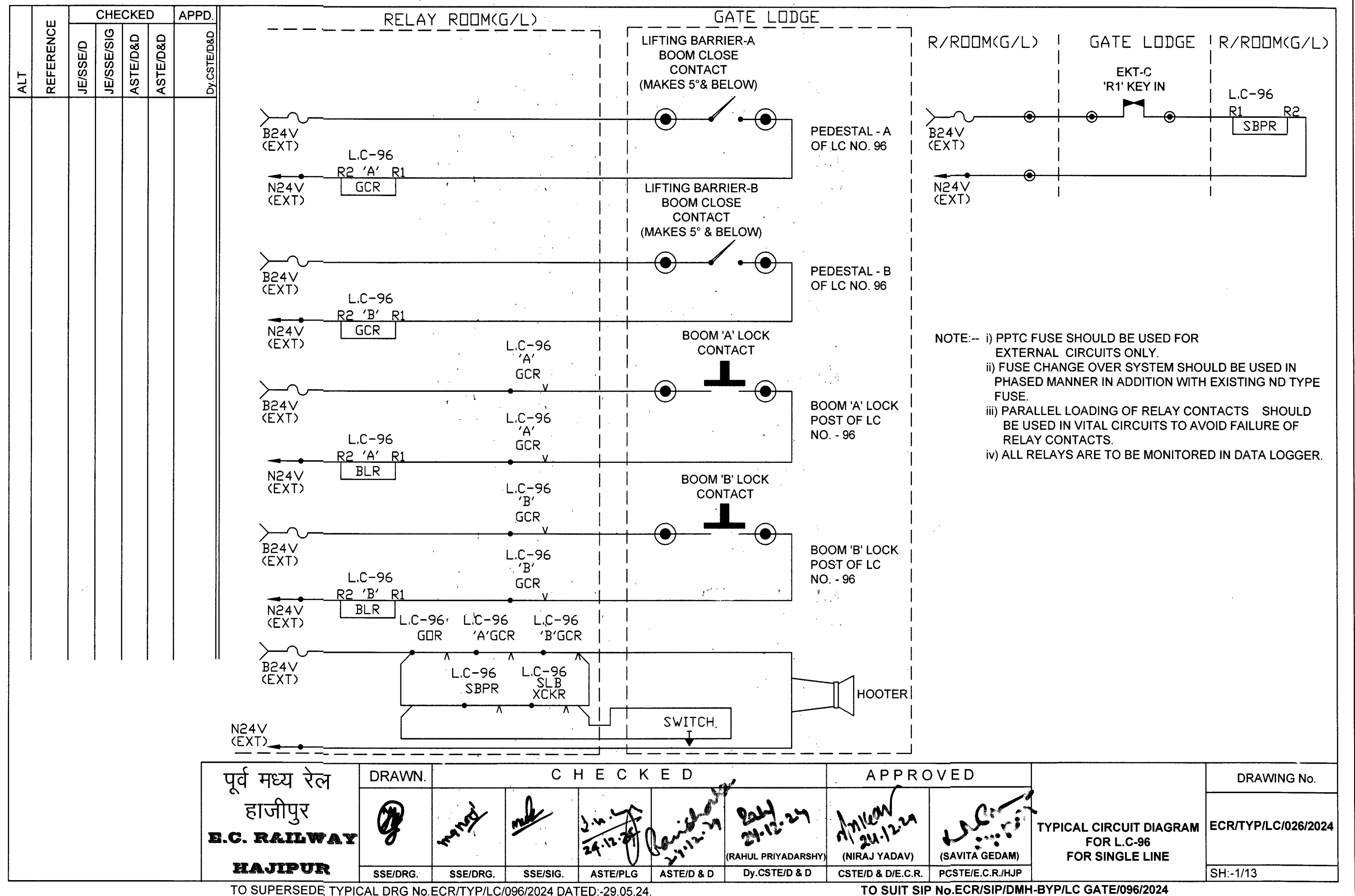
Typical circuit diagram of mid section interlocked L.C.Gate in single line section has been prepared superseding previous circuit diagram of mid section interlocked L.C. Gate in single line ECR/TYP/LC/96/2024 , dated: 29.05.24.This circuit diagram of L.C.Gate in single line has been approved by **PCSTE/ECR/HJP** for implementation over ECR.

This is for information and implementation over ECR with immediate effect.

DA: Approved circuit diagram of L.C.Gate in single line.

Rahul
24.12.2024
(Rahul Priyadarsy)
Dy. CSTE/D&D/HJP
for GM/S&T/ECR

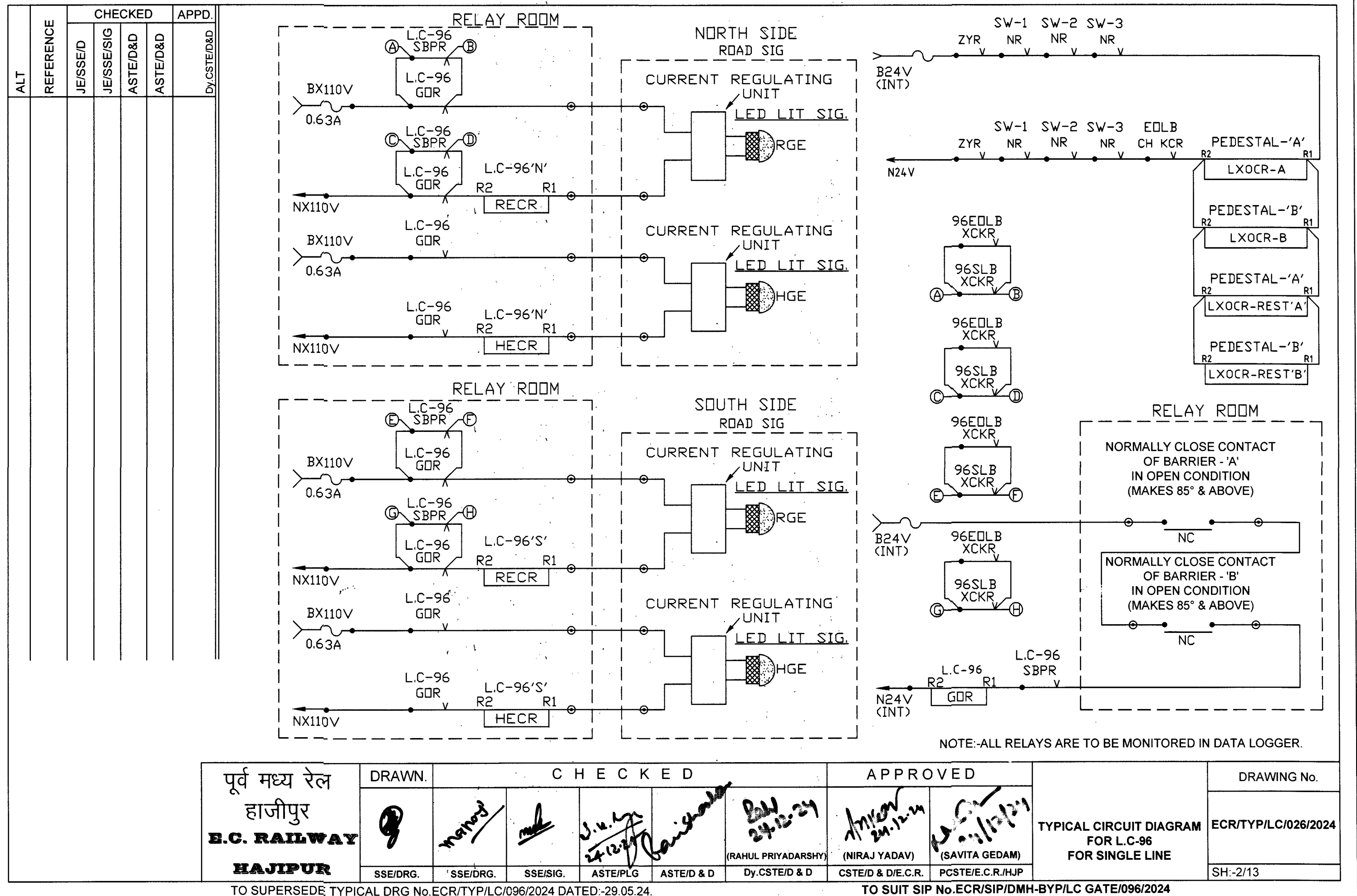
**TYPICAL CIRCUIT DIAGRAM
OF L.C GATE IN
SINGLE LINE**



<p>पूर्व मध्य रेल हाजीपुर E.C. RAILWAY HAJIPUR</p>	DRAWN.	C H E C K E D					A P P R O V E D		DRAWING No.
									ECR/TYP/LC/026/2024
	SSE/DRG.	SSE/DRG.	SSE/SIG.	ASTE/PLG	ASTE/D & D	Dy.CSTE/D & D	CSTE/D & D/E.C.R.	PCSTE/E.C.R./HJP	SH:-1/13

TO SUPERSEDE TYPICAL DRG No.ECR/TYP/LC/096/2024 DATED:-29.05.24.

TO SUIT SIP No.ECR/SIP/DMH-BYP/LC GATE/096/2024

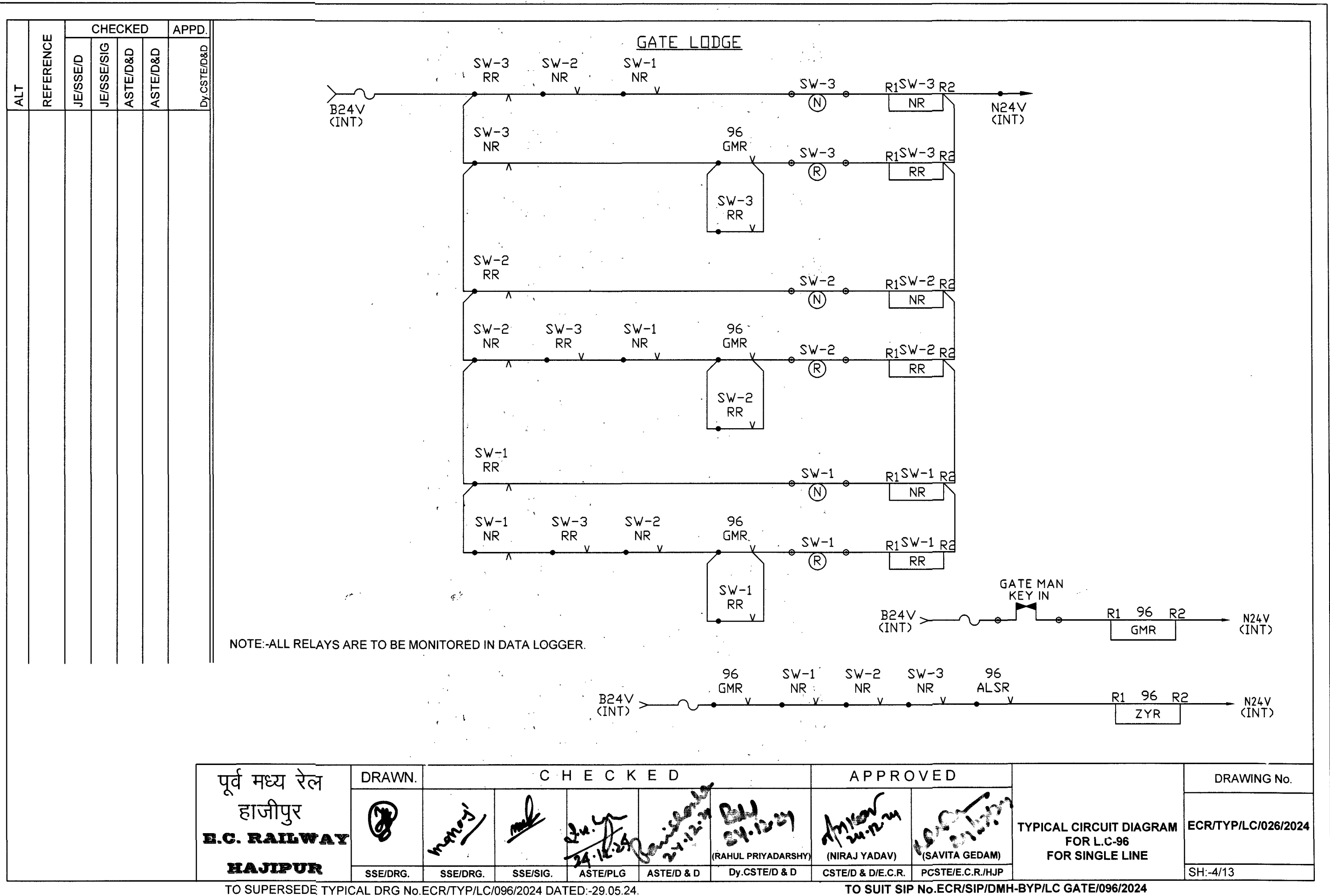


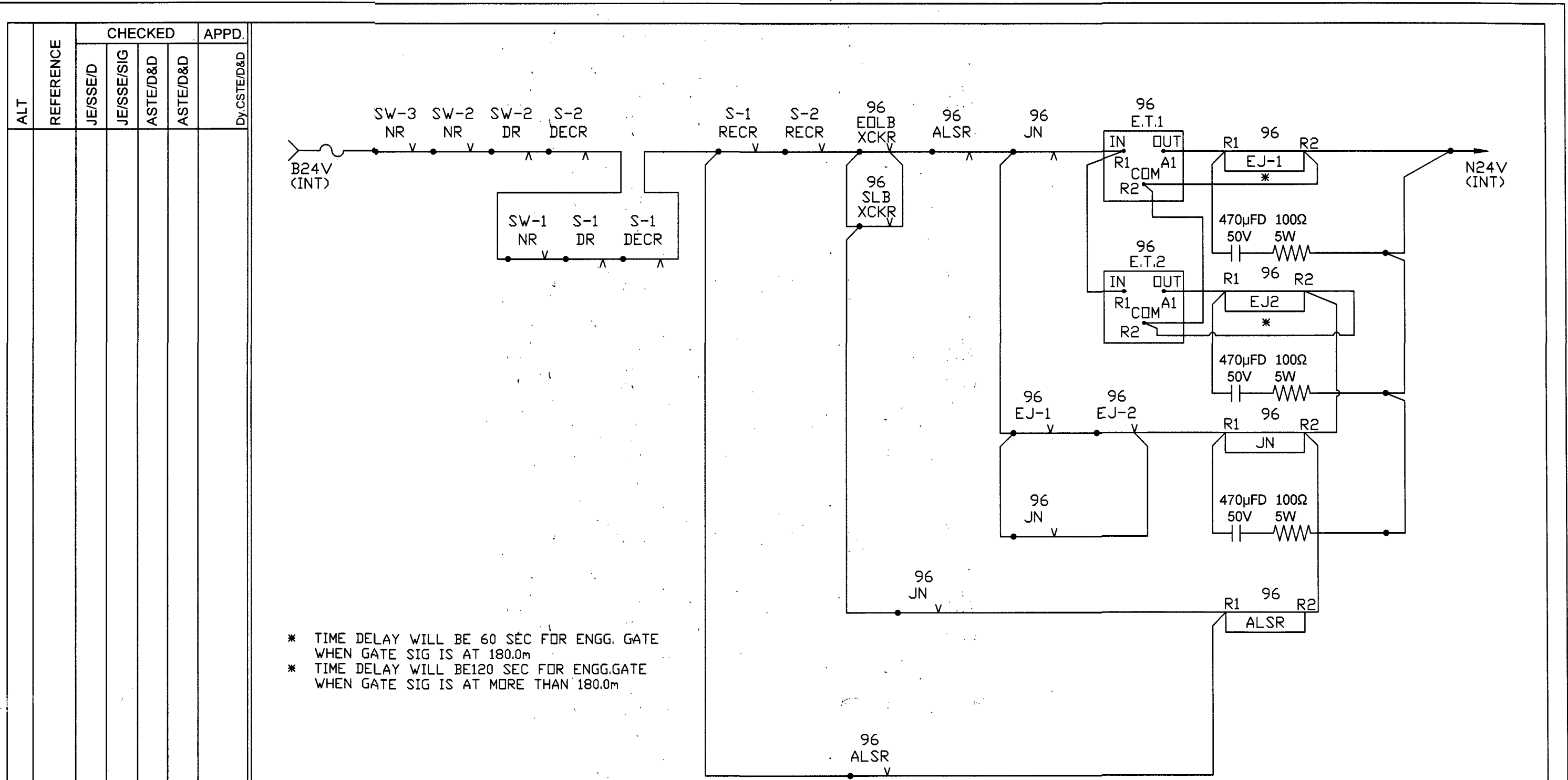
पूर्व मध्य रेल
हाजीपुर
E.C. RAILWAY
HAJIPUR

DRAWN.	C H E C K E D				A P P R O V E D		TYPICAL CIRCUIT DIAGRAM FOR L.C-96 FOR SINGLE LINE	DRAWING No.
								ECR/TYP/LC/026/2024
SSE/DRG.	SSE/DRG.	SSE/SIG.	ASTE/PLG	ASTE/D & D	Dy.CSTE/D & D	CSTE/D & D/E.C.R.		SH:-2/13

TO SUPERSEDE TYPICAL DRG No.ECR/TYP/LC/096/2024 DATED:-29.05.24.

TO SUIT SIP No.ECR/SIP/DMH-BYP/LC GATE/096/2024



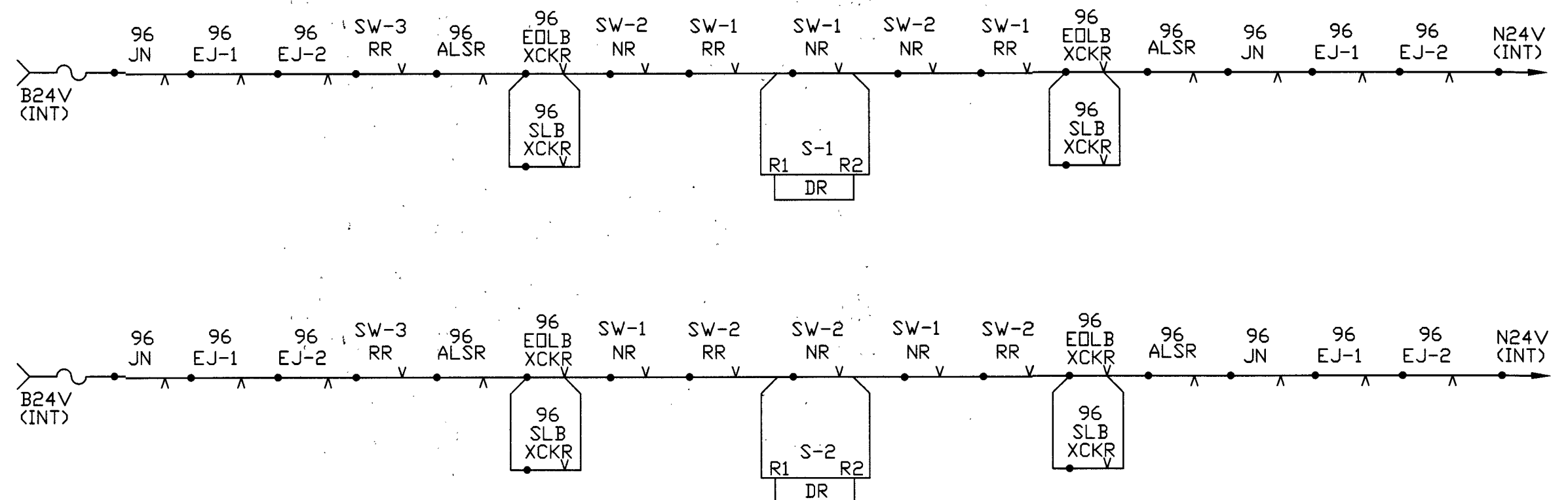


NOTE:-ALL RELAYS ARE TO BE MONITORED IN DATA LOGGER.








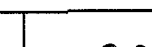
<div>पूर्व मध्य रेल</div> <div>हाजीपुर</div> <div>E.C. RAILWAY</div> <div>HAJIPUR</div>	DRAWN.	C H E C K E D				A P P R O V E D		<div>TYPICAL CIRCUIT DIAGRAM</div> <div>FOR L.C-96</div> <div>FOR SINGLE LINE</div>	DRAWING No.
									ECR/TYP/LC/026/2024
	SSE/DRG.	SSE/DRG.	SSE/SIG.	ASTE/PLG	ASTE/D & D	Dy.CSTE/D & D	CSTE/D & D/E.C.R.		SH:-5/13

TO SUPERSEDE TYPICAL DRG No.ECR/TYP/LC/096/2024 DATED:-29.05.24.

TO SUIT SIP No.ECR/SIP/DMH-BYP/LC GATE/096/2024

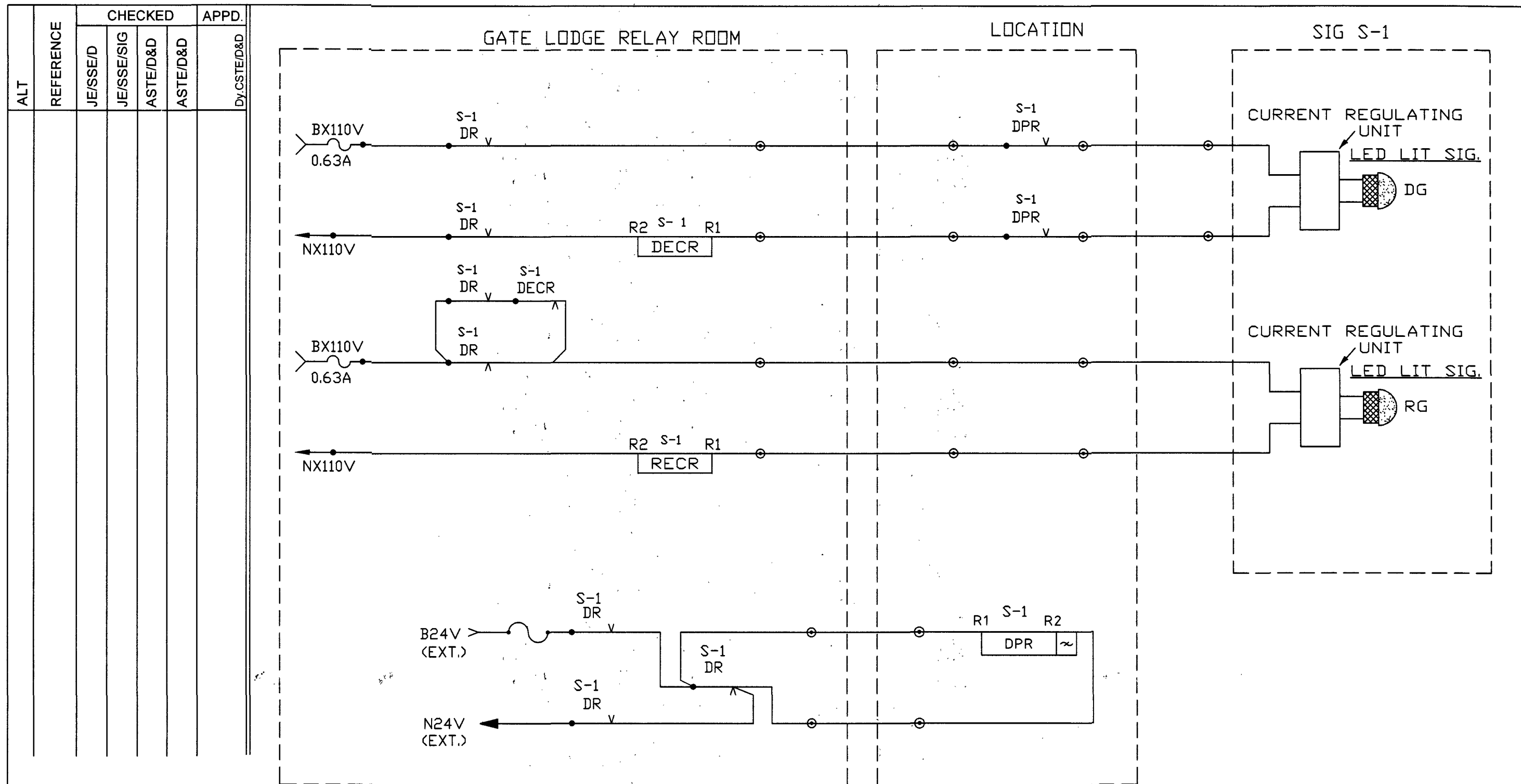
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NOTE:-ALL RELAYS ARE TO BE MONITORED IN DATA LOGGER.

<p>पूर्व मध्य रेल</p> <p>हाजीपुर</p> <p>E.C. RAILWAY</p> <p>HAJIPUR</p>	DRAWN.		C H E C K E D				A P P R O V E D		<p>TYPICAL CIRCUIT DIAGRAM FOR L.C-96 FOR SINGLE LINE</p>	DRAWING No.
										ECR/TYP/LC/026/2024
	SSE/DRG.	SSE/DRG.	SSE/SIG.	ASTE/PLG	ASTE/D & D	Dy.CSTE/D & D	CSTE/D & D/E.C.R.	PCSTE/E.C.R./HJP		SH:-6/13

TO SUPERSEDE TYPICAL DRG No. ECR/TYP/LC/096/2024 DATED:-29.05.24.

TO SUIT SIP No.ECR/SIP/DMH-BYP/LC GATE/096/2024

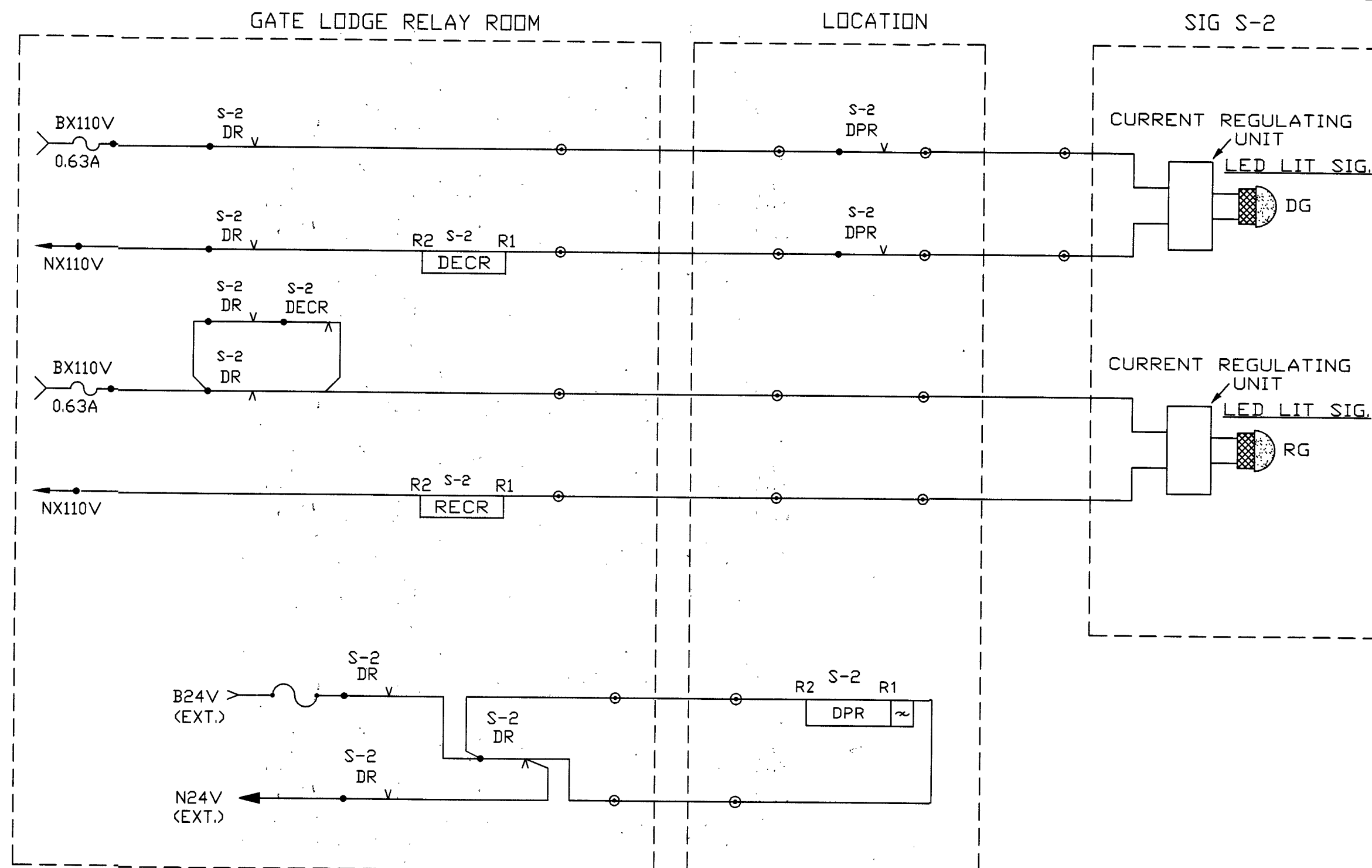


NOTE:-ALL RELAYS ARE TO BE MONITORED IN DATA LOGGER.



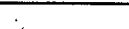





<p>पूर्व मध्य रेल हाजीपुर E.C. RAILWAY HAJIPUR</p>	DRAWN.					CHECKED			APPROVED			<p>TYPICAL CIRCUIT DIAGRAM FOR L.C-96 FOR SINGLE LINE</p>	DRAWING No.
													ECR/TYP/LC/026/2024
	SSE/DRG.	SSE/DRG.	SSE/SIG.	ASTE/D & D	Dy.CSTE/D & D	CSTE/D & D/E.C.R.	PCSTE/E.C.R./HJP	CSTE/D & D/E.C.R.	PCSTE/E.C.R./HJP	CSTE/D & D/E.C.R.	PCSTE/E.C.R./HJP		SH:-7/13

TO SUPERSEDE TYPICAL DRG No.ECR/TYP/LC/096/2024 DATED:-29.05.24.

TO SUIT SIP No.ECR/SIP/DMH-BYP/LC GATE/096/2024

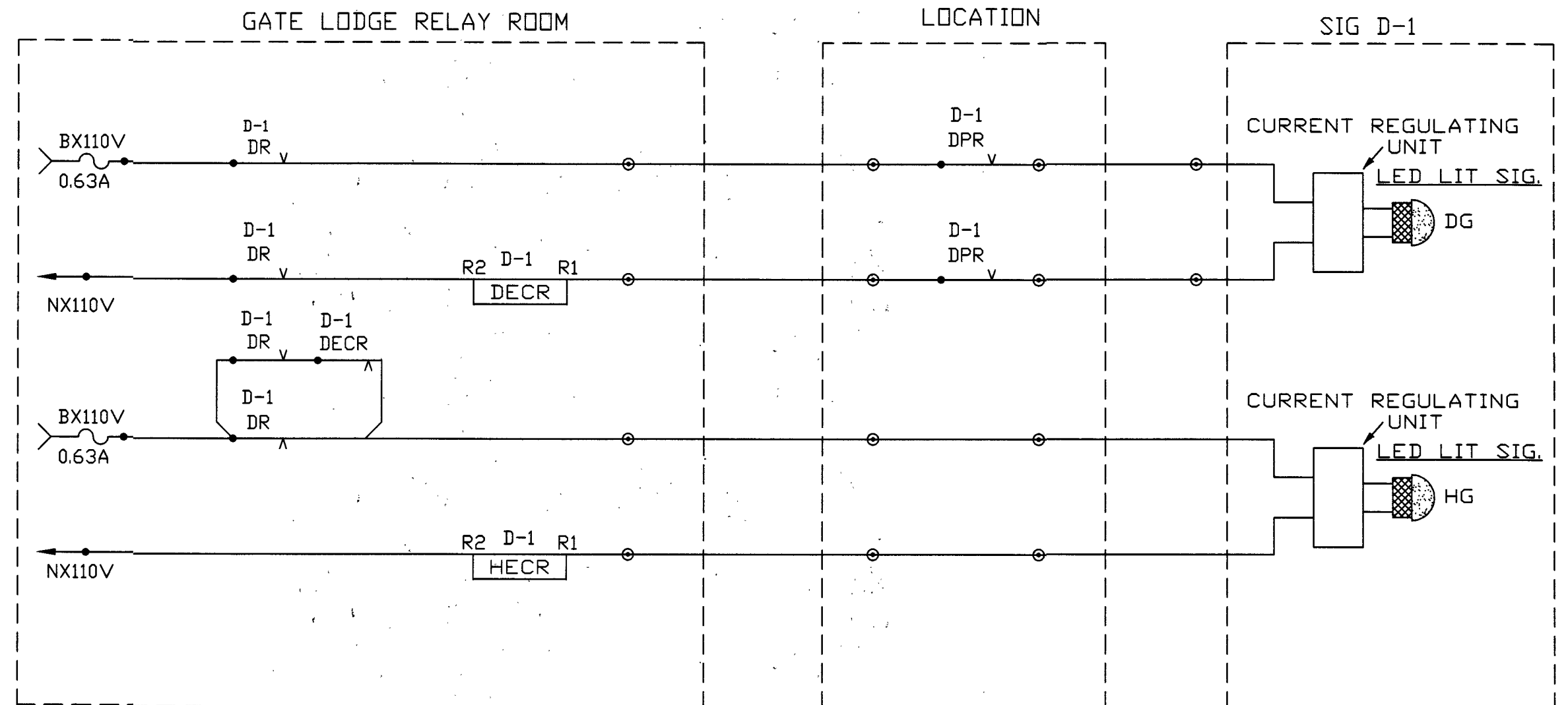
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NOTE:-ALL RELAYS ARE TO BE MONITORED IN DATA LOGGER.









<p>पूर्व मध्य रेल हाजीपुर E.C. RAILWAY HAJIPUR</p>	DRAWN.	C H E C K E D					A P P R O V E D		<p>TYPICAL CIRCUIT DIAGRAM FOR L.C-96 FOR SINGLE LINE</p>	DRAWING No.
										ECR/TYP/LC/026/2024
	SSE/DRG.	SSE/DRG.	SSE/SIG.	ASTE/PLG	ASTE/D & D	Dy.CSTE/D & D	CSTE/D & D/E.C.R.	PCSTE/E.C.R./HJP		SH: 8/13

TO SUPERSEDE TYPICAL DRG No.ECR/TYP/LC/096/2024 DATED:-29.05.24.

TO SUIT SIP No.ECR/SIP/DMH-BYP/LC GATE/096/2024

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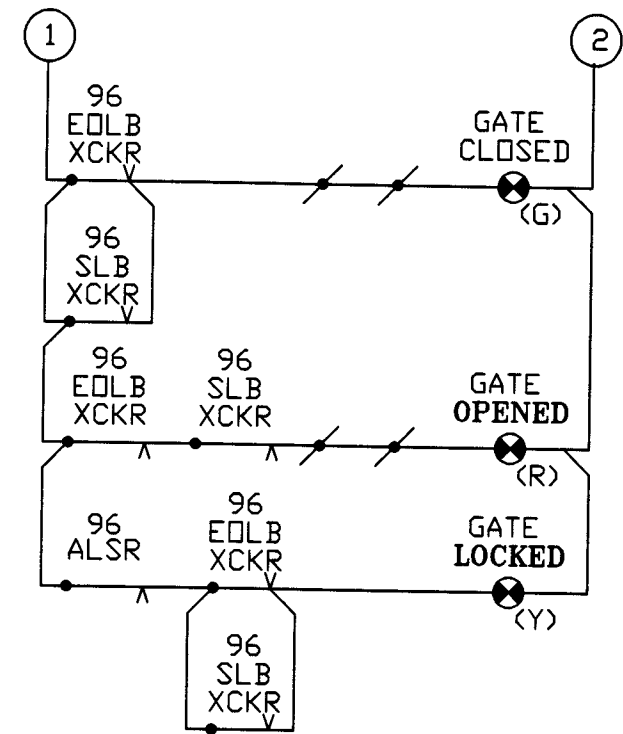
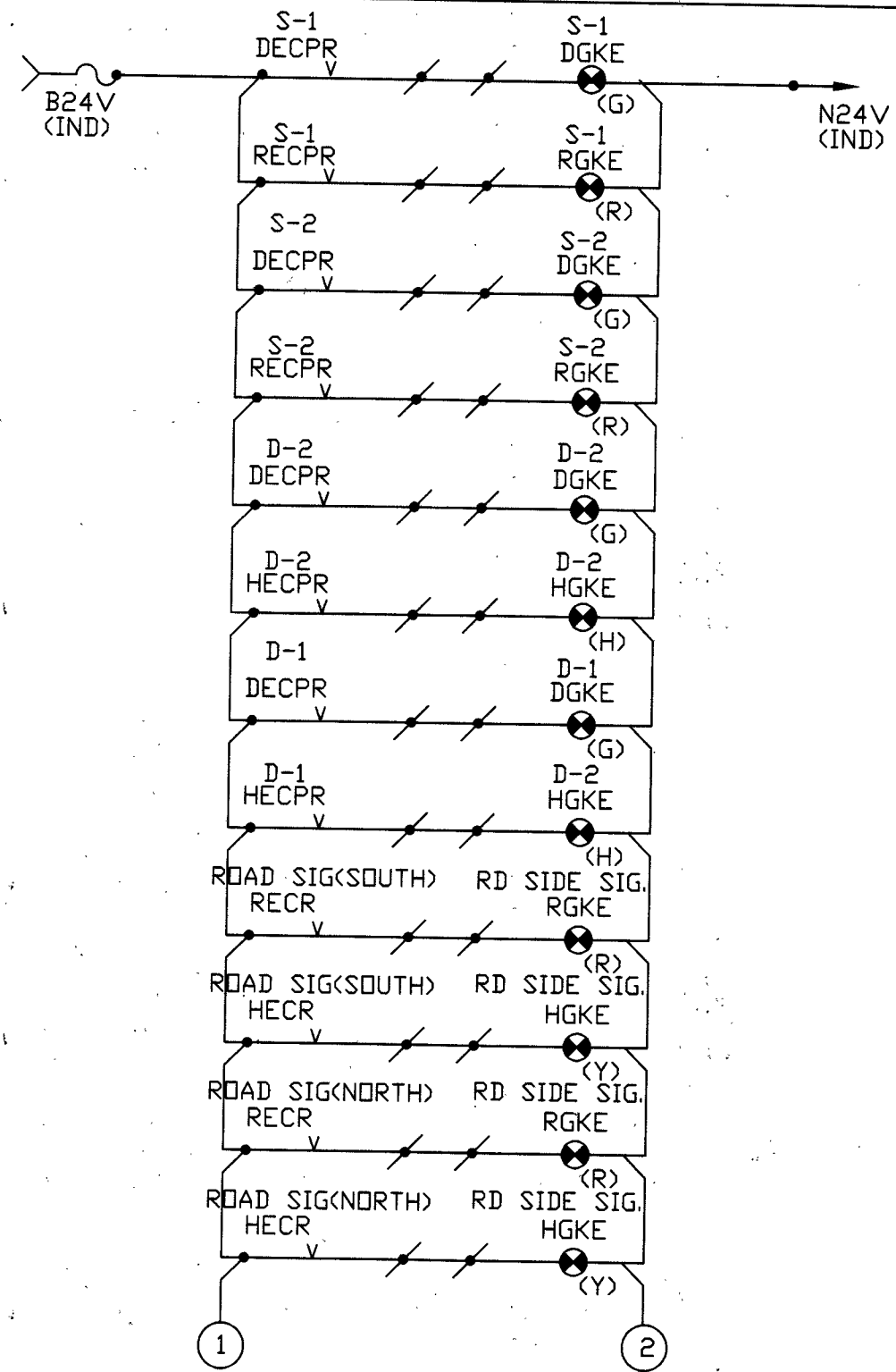
NOTE:-ALL RELAYS ARE TO BE MONITORED IN DATA LOGGER.

<p>पूर्व मध्य रेल</p> <p>हाजीपुर</p> <p>E.C. RAILWAY</p> <p>HAJIPUR</p>	DRAWN.	C H E C K E D					A P P R O V E D		<p>TYPICAL CIRCUIT DIAGRAM FOR L.C-96 FOR SINGLE LINE</p>	DRAWING No.
										ECR/TYP/LC/026/2024
	SSE/DRG.	SSE/DRG.	SSE/SIG.	ASSE/PLG	ASSE/D & D	Dy.CSTE/D & D	CSTE/D & D/E.C.R.	PCSTE/E.C.R./HJP		SH:-9/13

TO SUPERSEDE TYPICAL DRG No.ECR/TYP/LC/096/2024 DATED:-29.05.24

TO SUIT SIP No.ECR/SIP/DMH-BYP/LC GATE/096/2024

ALT	REFERENCE	CHECKED				APPD.
		JE/SSE/D	JE/SSE/SIG	ASTE/D&D	ASTE/D&D	



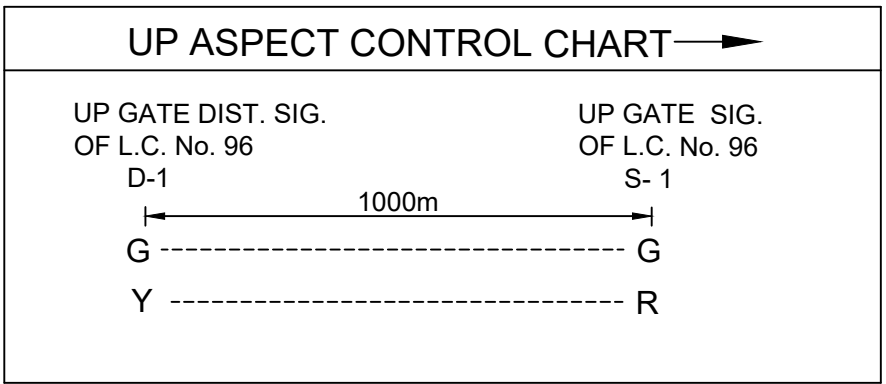
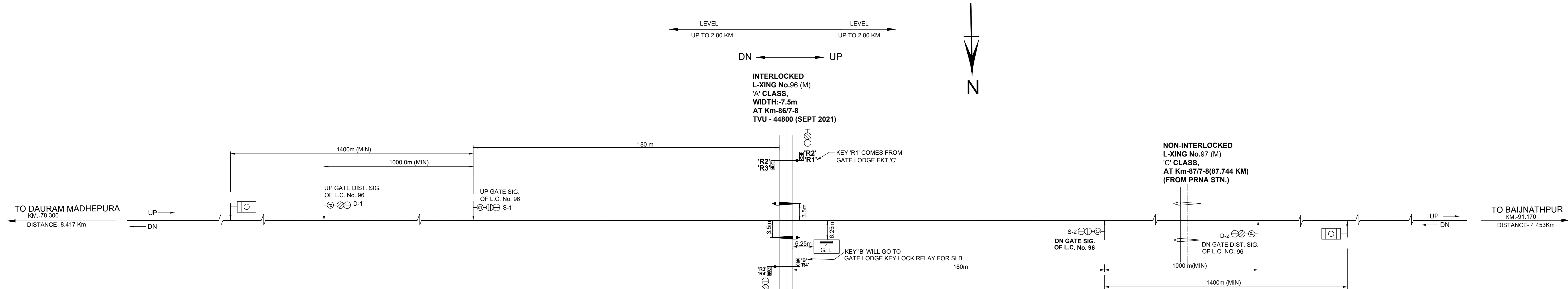
NOTE:-ALL RELAYS ARE TO BE MONITORED IN DATA LOGGER.

<p>पूर्व मध्य रेल हाजीपुर E.C. RAILWAY HAJIPUR</p>	DRAWN.	C H E C K E D					A P P R O V E D		<p>TYPICAL CIRCUIT DIAGRAM FOR L.C-96 FOR SINGLE LINE</p>	DRAWING No.
										ECR/TYP/LC/026/2024
	SSE/DRG.	SSE/DRG.	SSE/SIG.	ASTE/PLG	ASTE/D & D	Dy.CSTE/D & D	CSTE/D & D/E.C.R.	PCSTE/E.C.R./HJP		SH:-12/13

TO SUPERSEDE TYPICAL DRG No.ECR/TYP/LC/096/2024 DATED:-29.05.24.

TO SUIT SIP No.ECR/SIP/DMH-BYP/LC GATE/096/2024

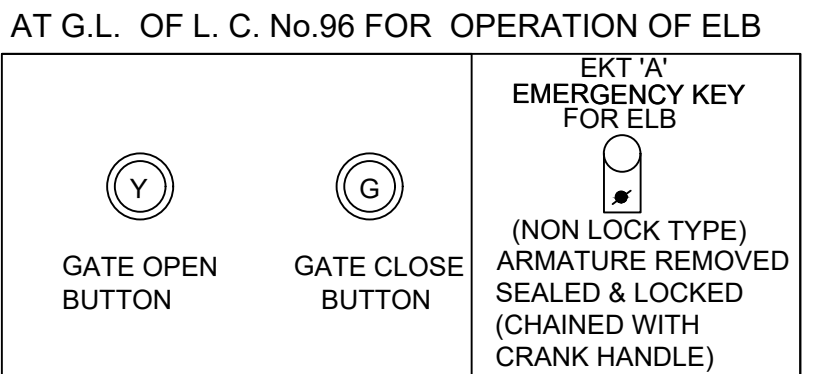
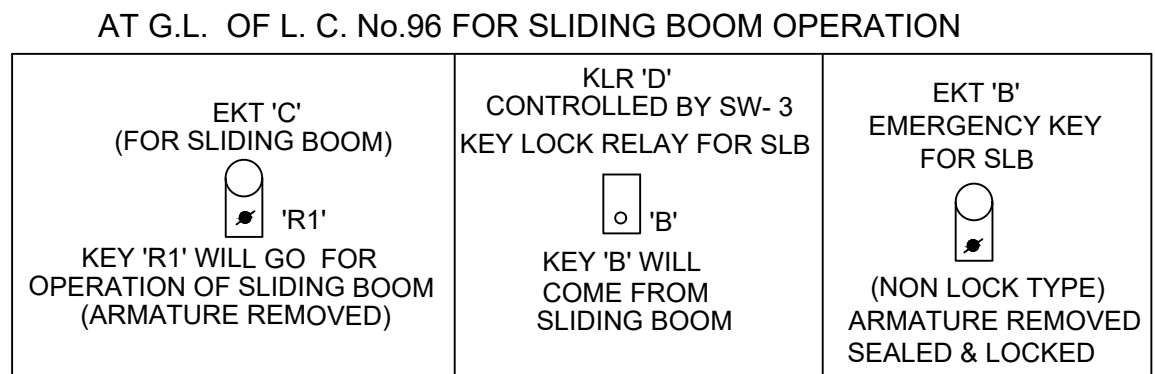
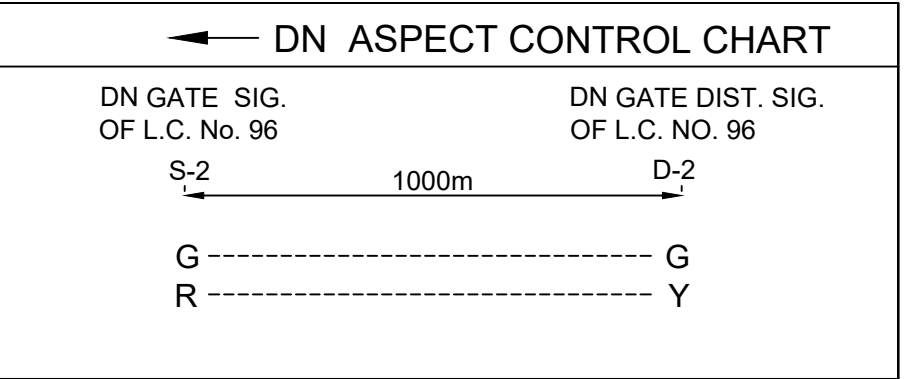
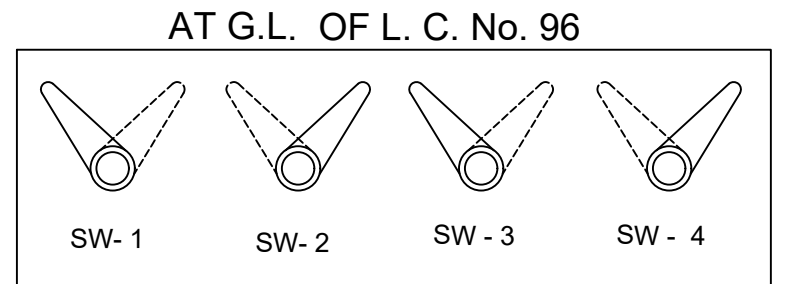
SPECIAL INSTRUCTIONS/APPROVED SPECIAL INSTRUCTIONS				
SL.NO.	INSTRUCTIONS	ISSUED BY	AUTHORITY	REMARKS



ELECTRICAL LOCKING TABLE FOR L.C. No.96

SWITCH	BACK LOCKS	LOCKS	RELEASES
SW - 1.	UP GATE SIG.	SW - 2.	--
2.	3.	1.	--
3.	--	--	1, 2.
4.	SPARE	--	--

SWITCH	DESCRIPTION
SW - 1.	UP GATE SIG.
SW - 2.	DN GATE SIG.
SW - 3.	GATE CONTROL
SW - 4.	SPARE



NOTE:- (i) PROVISION OF DEAD APPROACH LOCKING AT MID SECTION
A.B1.B2 & C CLASS INTERLOCKED GATES.
(a) 60 SEC TIMER FOR OPENING OF LC GATES WHERE GATE SIGNALS ARE AT 180.0m FROM LC.
(b) 120 SEC TIMER FOR OPENING OF LC GATES WHERE GATE SIGNALS ARE AT MORE THAN 180.0m FROM LC.
(ii) PROVISION OF TRACK CIRCUITS FOR SEQUENTIAL ROUTE RELEASE AT SPL CLASS INTERLOCKED GATES WITH DEAD APPROACH TIMER FOR EMERGENCY SIGNAL CANCELLATION/OPENING OF LC GATE.

NOTE:-
1. A CRANK HANDLE IS PROVIDED FOR MANUAL OPERATION(OPENING/CLOSING) OF ELB.
IN CASE OF FAILURE OF ELECTRICAL CONTROL FROM SM's VDU/PANEL TO L.C GATE OR FAILURE IN OPENING/CLOSING OF ELB ELECTRICALLY.
2. A GATE EMERGENCY KEY IS CHAINED WITH THE CRANK HANDLE AND IS INSERTED IN EKT 'A'(ARMATURE REMOVED) WHICH IS HOUSED IN A BOX AT GATE LODGE WHICH IS GLASS FRONTED AND HAS FACILITY OF SEALING & LOCK.
3. ANOTHER EMERGENCY KEY FOR SLB IS ALSO PROVIDED TO OPEN SLIDING BOOM IN CASE OF FAILURE OF EXTRACTION OF KEY'B' FROM KLR 'D'. THIS EMERGENCY KEY FOR SLB IS INSERTED IN EKT 'B'(ARMATURE REMOVED) WHICH IS HOUSED IN A BOX AT GATE LODGE WHICH IS GLASS FRONTED AND HAS FACILITY OF SEALING & LOCK.
4. EXTRACTION OF ANY GATE EMERGENCY KEY(PROVIDED FOR EMERGENCY OPERATION OF ELB/SLB) SHALL RESTORE THE GATE SIGNALS TO 'ON' POSITION.
5. EXTRACTION OF EMERGENCY KEY PROVIDED FOR ELB SHALL DISABLE THE ELECTRICAL OPERATION OF ELB.
6. INDICATION OF AVAILABILITY/EXTRACTION OF BOTH GATE EMERGENCY KEY INSIDE THEIR RESPECTIVE EKTS SHALL BE AVAILABLE TO THE GATE MAN.

SIGNAL SPECIFIC NOTES - I

1. NUMBER GRID:

FUNCTIONS	LOCATION or DIRECTION	RANGE	SPARES
SIGNAL	RIGHT TO LEFT	01 (ODD NUMBERS)	NIL
	LEFT TO RIGHT	02 (EVEN NUMBERS)	NIL

2. BLOCK WORKING:-NIL

SECTION	TYPE OF BLOCK WORKING	BLOCK INSTRUMENT TYPE	BPAC	REMARKS IF ANY

3. DETAILS OF TRACK CIRCUITS:-NIL

TRACK CIRCUIT NOS.	TYPE OF TRACK CIRCUITS	REMARKS IF ANY

4. DETAILS OF AXLE COUNTERS:- NIL

AXLE COUNTER SECTION	TYPE OF AXLE COUNTER	TYPE OF RESETTING	LOCATION OF RESETTING BOX	LOCATION OF GO OPERATION PLUNGER/IV BOX

5. DETAILS OF L-XING

SL.No.	L.C No.	CLASS	KM	MUM	TELE PHONE CONNECTED	TVU	INTERLOCKED/ NON-INTERLOCKED
1.	NIL						

6. COMMUNICATION DETAILS:

TELEPHONE COMMUNICATION IS PROVIDED BETWEEN L-XING No.96 AND BAUNATHPUR STN.

7. INTERLOCKED LC GATE DETAILS:

- LC GATE NO. 96 IS PROVIDED WITH BOLL.
- SLIDING BOOM IS PROVIDED AT LC GATE NO.96.

- LED SIGNAL PROVIDED FOR ALL MACL SIGNALS.
- ANGLE OF CROSSING-90°.
- ROAD SIDE SIGNAL SHALL BE RAISED BACK TO DANGER BEFORE MOVING OF SLIDING BOOM BARRIER TO CLOSE THE LC GATE.
- DEAD APPROACH LOCKING PROVIDED AT LC GATE NO.96 WITH 60 SEC TIME DELAY.

GENERAL NOTES

- THIS PLAN IS BASED ON SIGNAL INTERLOCKING PLAN NO :-NIL.
- THIS PLAN IS BASED ON ENGINEERING SCALE PLAN (ESP) NO-NIL.
- THIS PLAN SUPERSEDES:-NIL.
- THE SITE SURVEY IS CARRIED OUT TO CORRELATE THE BASE RECORDS. THE SURVEY REMARKS ARE RECORDED IN-NIL.
- THIS L. C. GATE IS LOCATED IN 25 KV AC ELECTRIFIED SECTION.
- ALL THE STOP SIGNALS ARE LOCATED CLEAR OFF NEUTRAL SECTION.
- THE NEW SIGNAL POSITIONS HAVE BEEN AMENDED TO SUIT SIGNAL SIGHTING COMMITTEE REPORT.
- LC GATE NO.96 'A' IS ELECTRICALLY OPERATED AND THE EMERGENCY CONTROL KEY IS PROVIDED AT GATE LODGE.
- APPROACH WARNING IS PROVIDED AT THE LC GATE IF REQUIRED.
- ALL THE WORKS ARE CARRIED OUT AS PER THE PROVISIONS IN THE SEM. G & SR AND OTHER POLICY LETTERS.
- THE NEW EQUIPMENT IS PLACED AS PER SITE SURVEY.
- RECORD OF DESIGN DECISIONS ARE DETAILED IN SCHEME PLAN DESIGN LOG:- NOT APPLICABLE.
- SIGNAL AND SIGNAGES ARE IN ACCORDANCE WITH G&SR AND SEM.
- NON - STANDARD SYMBOLS USED ON THIS PLAN ARE:-NIL.
- REFER INTERLOCKING CONTROL CHART FOR DETAILS OF ALL SIGNAL ROUTES.
- COMPLETION DETAILS TO BE INCORPORATED AFTER COMMISSIONING THE WORKS SUITING TO SITE CONDITIONS FOR GENERATING SIGNAL INTERLOCKING PLAN (RECORDS UPDATED) :- NIL.
- SPECIAL NOTES RELATED TO SPECIFIC RAILWAY STATION LIKE SPT, EMERGENCY GATE KEY #6:-NIL.
- ALL SIGNALS ARE OF LED TYPE.

ALT.	NAME OF WORK	REFERENCE	DRAWN	SSE/DRG	SSE/SIG	ASTE/PLG	ASTE/D&D	DY. CSTE/PLG	COUNTER SIGNED	CTPMECR	APPROVED	1 CSTE/ECR	CRS'S SANCTION NO.&DT	COMP.

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

C.R.S. SANCTION NO.	SCALE (1:1000)	SIGNAL INTERLOCKING PLAN		
DATE :-	LONGITUDINAL : 1CM = 10M TRANSVERSE : 1CM = 5 M			
COMPLETED ON	CLASS A	SIGNAL INTERLOCKING PLAN FOR L.C GATE No. 96 BETWEEN DAURAM MADHEPURA AND BAUNATHPUR	ZONE	ECR
STANDARD OF INTERLOCKING	II		DIVISION	SPJ
TYPE OF SIGNALS	MACLS	ECR/SIP/DMH-BYP/L.C GATE/096/2024	STATION	L.C 96

TYPICAL SIP FOR L.C GATE