

DSS DISTANCE TABULATION

EDGE OF ROAD TO DSS 1	440'
EDGE OF ROAD TO DSS 2	50'
EDGE OF ROAD TO DSS 3	50'
EDGE OF ROAD TO DSS 4	440'
EDGE OF ROAD TO US HWY 6 START	335'

**NOTES:**

1. WARNING TIME 30 SECONDS AT 10 M.P.H.
2. SIGNALS 1, 2 AND 3 TO HAVE BELL.
3. AC SERVICE MOUNTED TO REAR OF EQUIPMENT HOUSE.
4. ALL DIMENSIONS ARE APPROXIMATE AND MAY VARY DUE TO ACTUAL FIELD CONDITIONS.
5. INSTALLATION TO BE IN ACCORDANCE WITH MUTCD, STATE AND/OR RAILROAD STANDARDS.

NOT TO SCALE

REVISIONS							

THE OPERATION OF THE CIRCUITS AND EQUIPMENT REPRESENTED HEREIN CANNOT BE FULLY CHECKED UNTIL ALL CIRCUITS AND DEVICES ARE CONNECTED TO FORM A COMPLETE SYSTEM, OR AN EFFECTIVE SUBSYSTEM. SUCH SYSTEM OR SUBSYSTEM MUST BE GIVEN COMPLETE CIRCUIT AND OPERATIONAL TESTS BEFORE BEING PLACED IN REGULAR OPERATION.



**CEDAR RAPIDS & IOWA CITY RAILWAY CO.**

DRAWN: J.G.C.	TRACK LAYOUT	DRAWING NO.
DESIGNED: J.A.W.	STEVENS DRIVE	<b>T-2294</b>
CHECKED: J.A.W.	IOWA CITY, IOWA	SHEET 1 OF 12
DATE: 04-19-23	DOT #607311G MILEPOST #28.31	

**NOTES:**

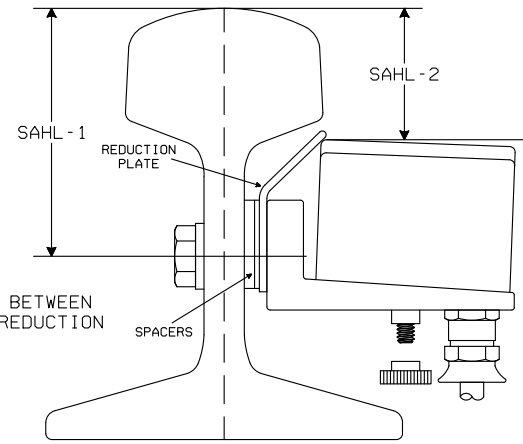
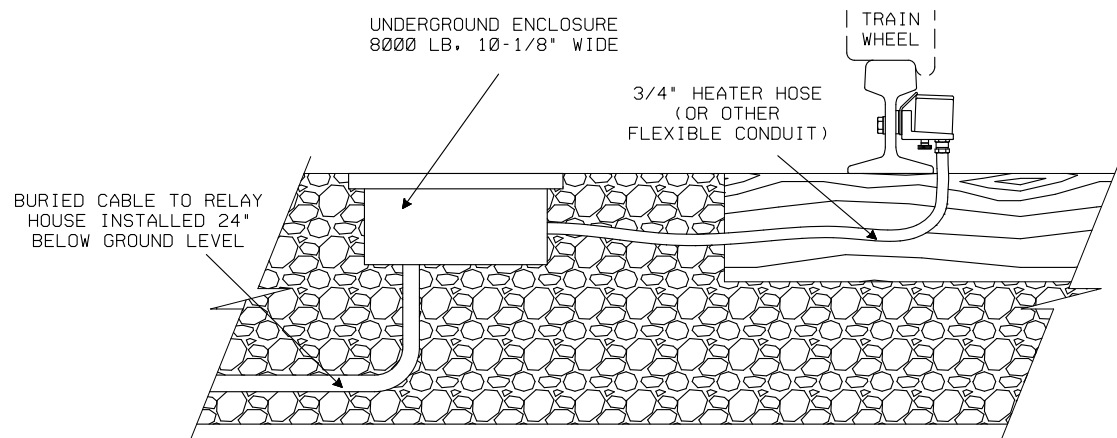
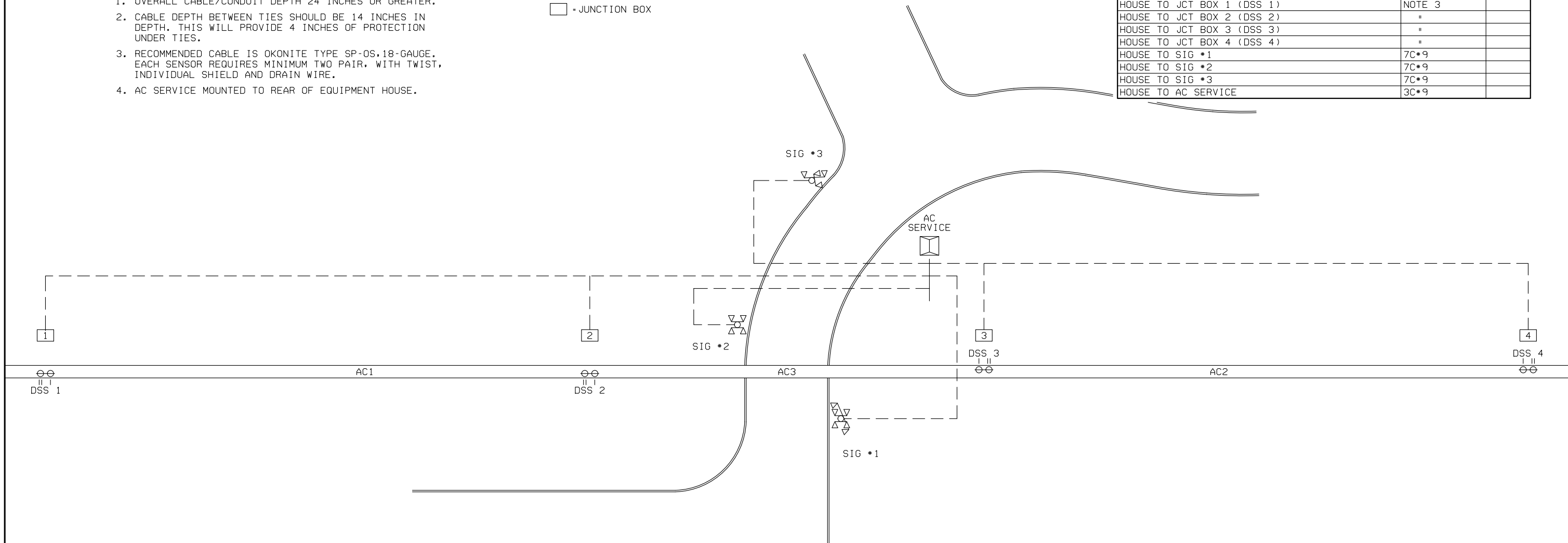
- OVERALL CABLE/CONDUIT DEPTH 24 INCHES OR GREATER.
- CABLE DEPTH BETWEEN TIES SHOULD BE 14 INCHES IN DEPTH. THIS WILL PROVIDE 4 INCHES OF PROTECTION UNDER TIES.
- RECOMMENDED CABLE IS OKONITE TYPE SP-OS, 18-GAUGE. EACH SENSOR REQUIRES MINIMUM TWO PAIR, WITH TWIST, INDIVIDUAL SHIELD AND DRAIN WIRE.
- AC SERVICE MOUNTED TO REAR OF EQUIPMENT HOUSE.

**LEGEND:**

□ - JUNCTION BOX

**CABLE TABULATION**

HOUSE TO JCT BOX 1 (DSS 1)	NOTE 3	
HOUSE TO JCT BOX 2 (DSS 2)	"	
HOUSE TO JCT BOX 3 (DSS 3)	"	
HOUSE TO JCT BOX 4 (DSS 4)	"	
HOUSE TO SIG *1	7C*9	
HOUSE TO SIG *2	7C*9	
HOUSE TO SIG *3	7C*9	
HOUSE TO AC SERVICE	3C*9	



**SPACER AND BOLT MOUNTING INFORMATION**

RAIL TYPE	SAHL-1	SAHL-2	POSITION	BOLT HOLES	SPACER
ASCE-80	>79MM <-79MM	>39MM <-39MM	UPPER LOWER	UPPER LOWER	WITHOUT NOT POSSIBLE
ASCE-90	>79MM <-79MM	>39MM <-39MM	UPPER LOWER	UPPER LOWER	WITHOUT NOT POSSIBLE
ASCE-100	>79MM <-79MM	>39MM <-39MM	UPPER LOWER	UPPER LOWER	WITHOUT NOT POSSIBLE
AREA-100	>79MM <-79MM	>39MM <-39MM	UPPER LOWER	UPPER LOWER	1.5MM BLUE NOT POSSIBLE
112-RE	>79MM <-79MM	>39MM <-39MM	UPPER LOWER	UPPER LOWER	WITHOUT NOT POSSIBLE
115-RE	>79MM <-79MM	>39MM <-39MM	UPPER LOWER	UPPER LOWER	WITHOUT NOT POSSIBLE
119-RE	>79MM <-79MM	>39MM <-39MM	UPPER LOWER	UPPER LOWER	4.3MM RED NOT POSSIBLE
CB-122	>79MM <-79MM	>39MM <-39MM	UPPER LOWER	UPPER LOWER	WITHOUT WITHOUT
132-RE	>79MM <-79MM	>39MM <-39MM	UPPER LOWER	UPPER LOWER	3.6MM GREEN WITHOUT
136-RE	>79MM <-79MM	>39MM <-39MM	UPPER LOWER	UPPER LOWER	1.3MM GRAY+4.3MM RED 1.5MM BLUE
140-RE	>79MM <-79MM	>39MM <-39MM	UPPER LOWER	UPPER LOWER	1.0MM RED+4.3MM RED 2.0MM BROWN
141-RE	>79MM <-79MM	>39MM <-39MM	UPPER LOWER	UPPER LOWER	1.0MM RED+4.3MM RED 4.3MM WHITE

- NOTE: SPACERS MOUNT BETWEEN RAIL WEB AND REDUCTION PLATE.
- DRAWING DIMENSIONS SHOWN ARE FOR EXAMPLE PURPOSES ONLY. SEE PINTSCH NORTH AMERICA INSTALLATION MANUAL FOR EXACT DIMENSIONS.
  - ONLY AUTHORIZED CEMBRE OR PINTSCH NORTH AMERICA DRILLING APPARATUS SHOULD BE USED.
  - PRECISION VERTICAL AND HORIZONTAL DRILLING TEMPLATES ARE REQUIRED TO ENSURE PROPER MOUNTING AND OPERATION.

**NOT TO SCALE**

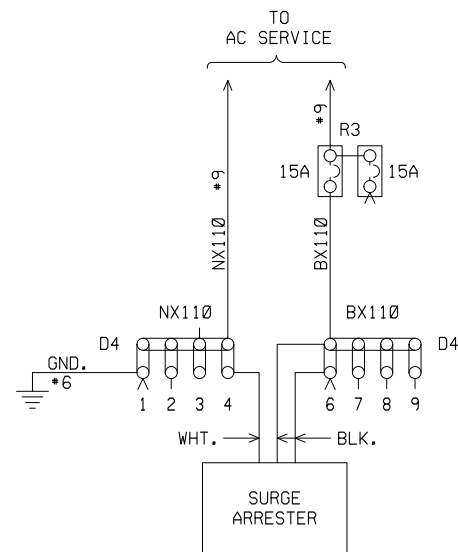
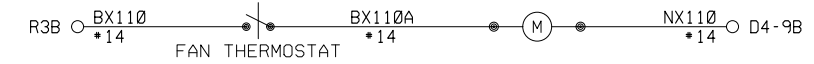
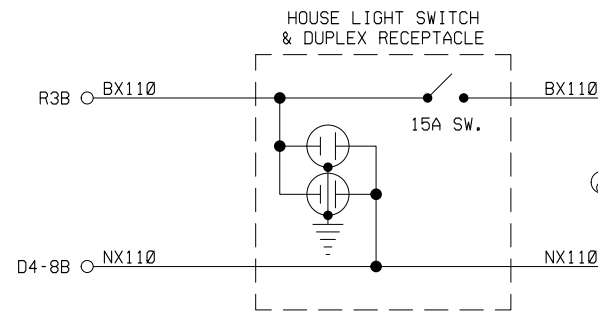
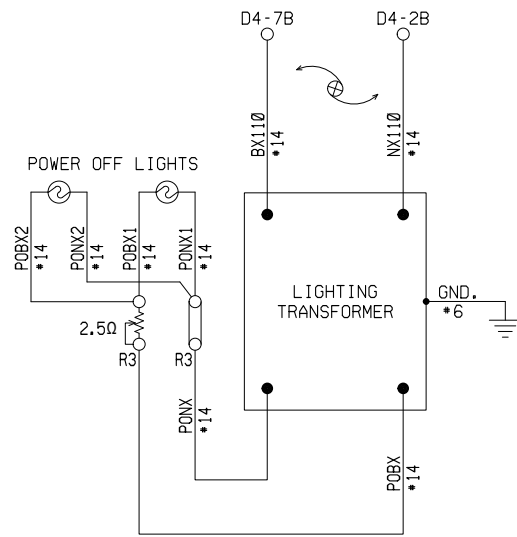
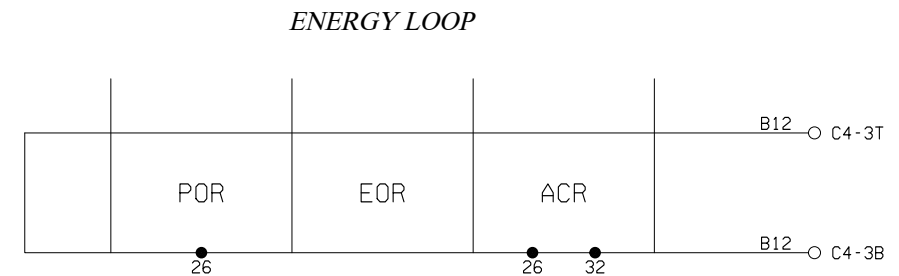
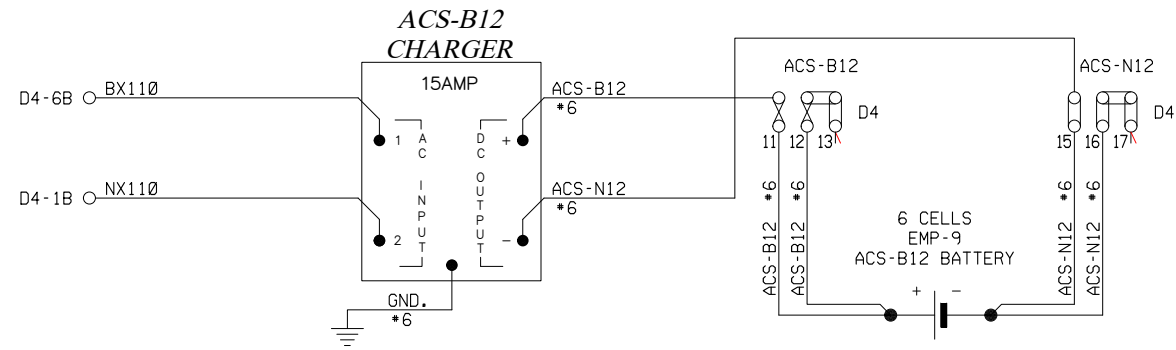
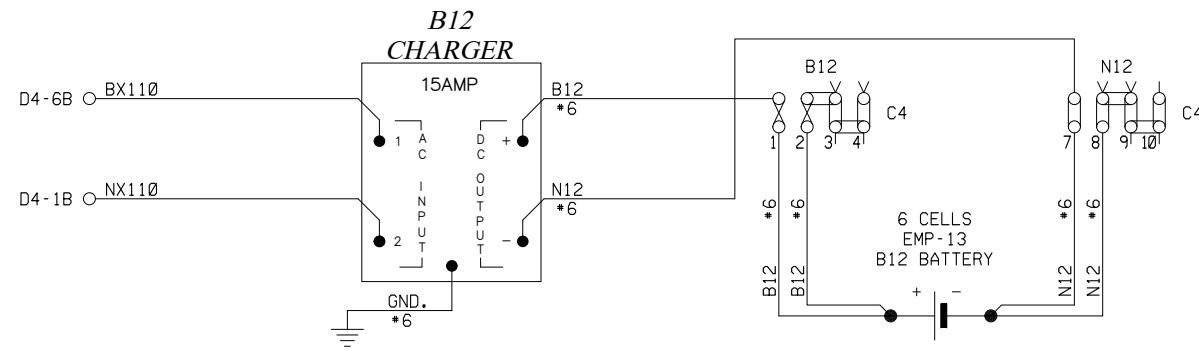
REVISIONS							

THE OPERATION OF THE CIRCUITS AND EQUIPMENT REPRESENTED HEREIN CANNOT BE FULLY CHECKED UNTIL ALL CIRCUITS AND DEVICES ARE CONNECTED TO FORM A COMPLETE SYSTEM, OR AN EFFECTIVE SUBSYSTEM. SUCH SYSTEM OR SUBSYSTEM MUST BE GIVEN COMPLETE CIRCUIT AND OPERATIONAL TESTS BEFORE BEING PLACED IN REGULAR OPERATION.

**PINTSCH**  
Safety for Rail  
Pintsch North America  
810 Skyline Drive  
Marion, Illinois 62959  
618-993-8513

**CEDAR RAPIDS & IOWA CITY RAILWAY CO.**

DRAWN: J.G.C.	CABLE	DRAWING NO.
DESIGNED: J.A.W.	STEVENS DRIVE	<b>T-2294</b>
CHECKED: J.A.W.	IOWA CITY, IOWA	SHEET 2 OF 12
DATE: 04-19-23	DOT #607311G MILEPOST #28.31	



- NOTES:
1. ALL WIRING TO BE #10 AWG UNLESS NOTED OTHERWISE.
  2. TWISTED WIRE. TWO TURNS PER FOOT.

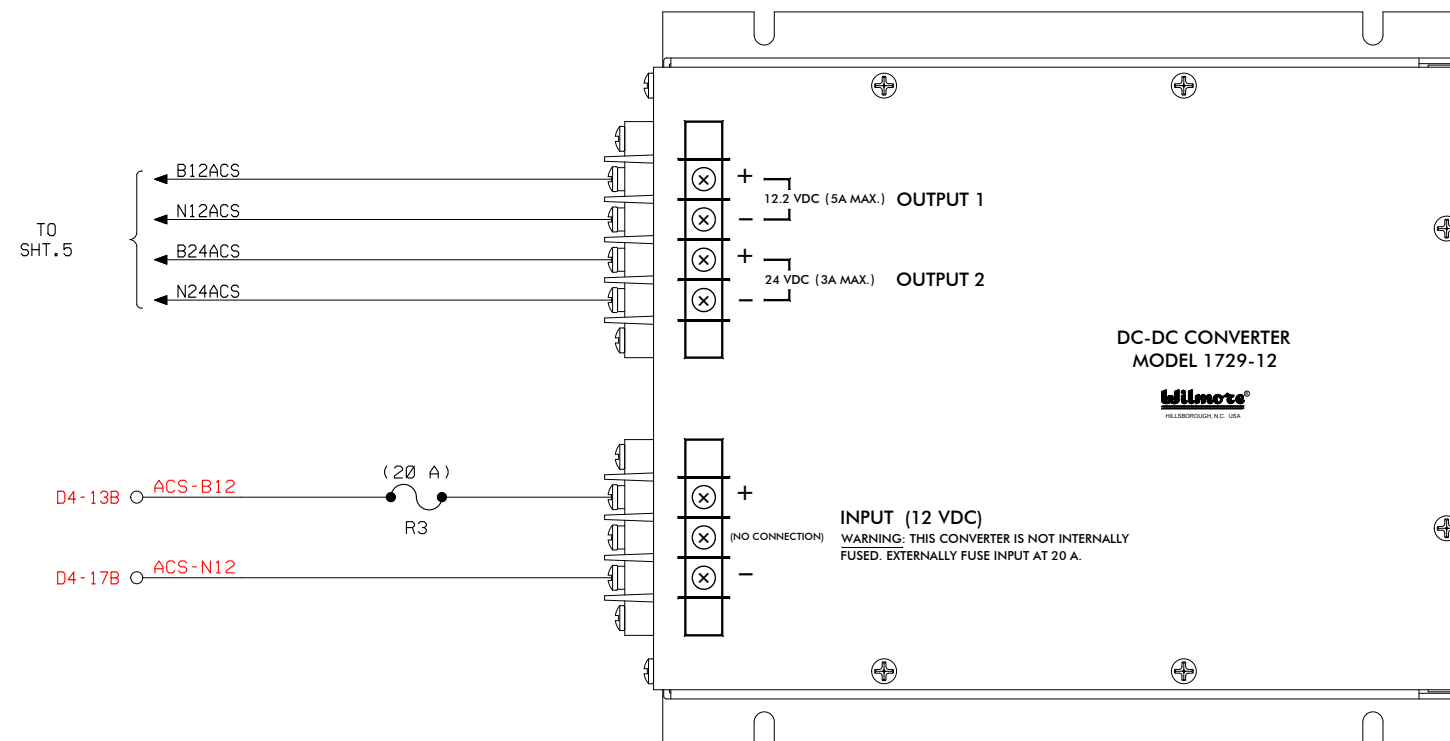
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CEDAR RAPIDS & IOWA CITY RAILWAY CO.

DRAWN: J.G.C.	POWER DISTRIBUTION	DRAWING NO.
DESIGNED: J.A.W.	STEVENS DRIVE	T-2294
CHECKED: J.A.W.	IOWA CITY, IOWA	SHEET 3 OF 12
DATE: 04-19-23	DOT #607311G MILEPOST #28.31	



**NOTES:**

1. ALL WIRING TO BE #16 AWG UNLESS NOTED OTHERWISE.
2. CONVERTER B12 INPUT TO BE EXTERNALLY FUSED AT 20 AMPS.

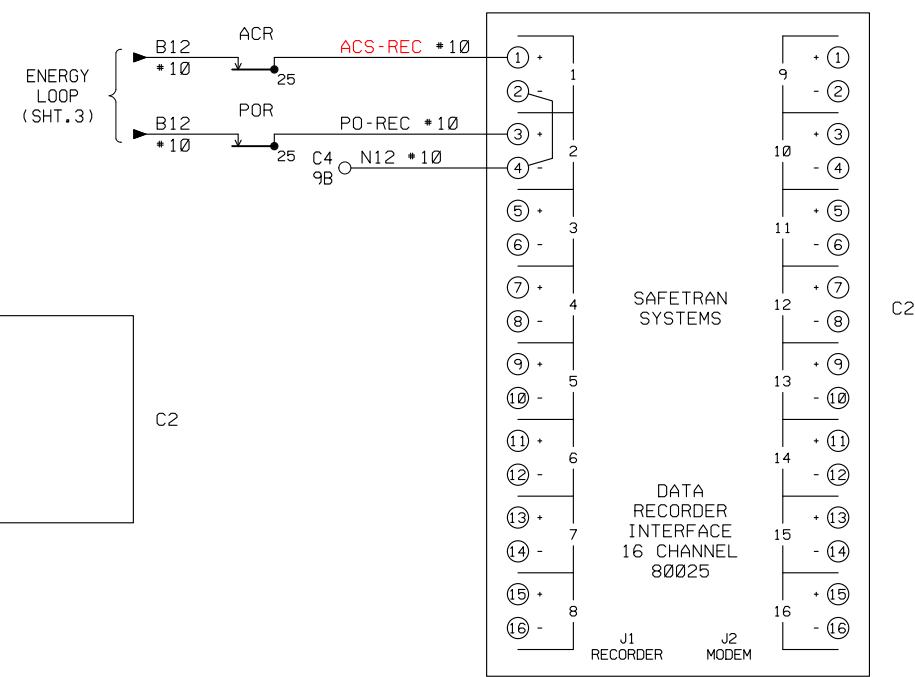
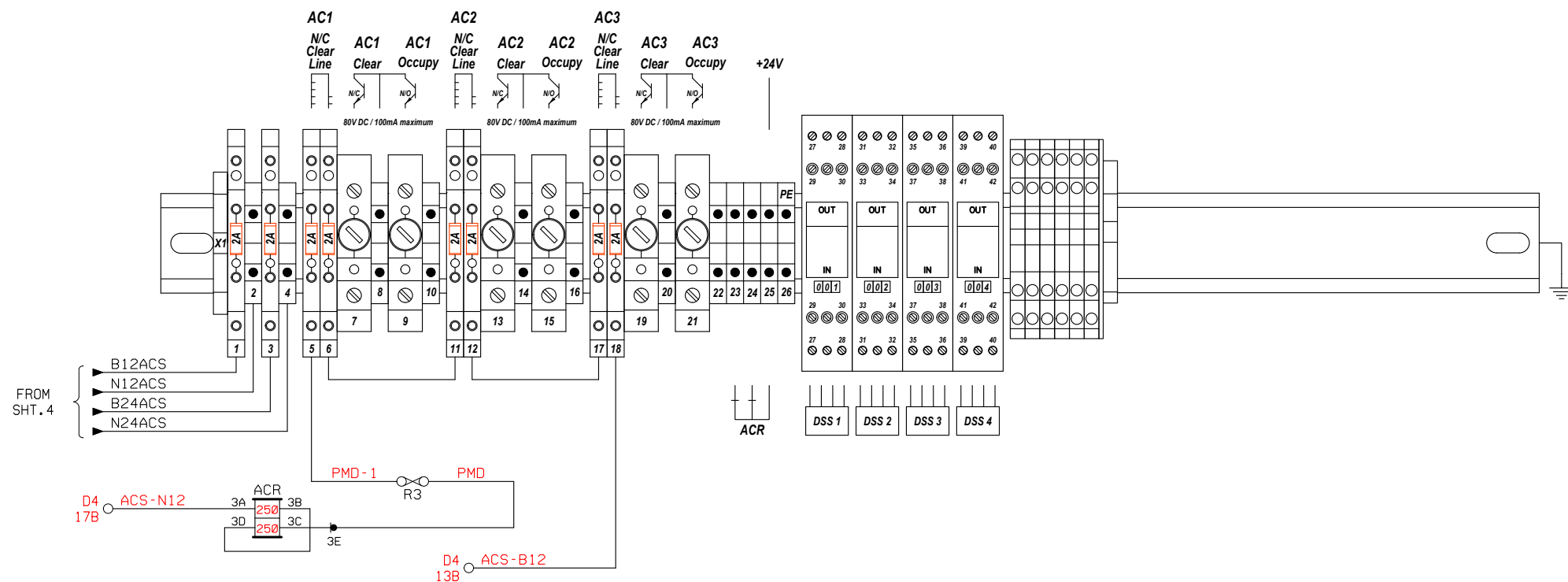
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**CEDAR RAPIDS & IOWA CITY RAILWAY CO.**

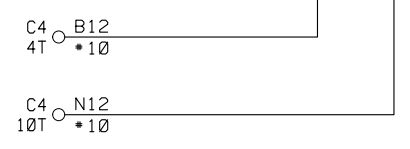
DRAWN: J.G.C.	DC-DC CONVERTER	DRAWING NO.
DESIGNED: J.A.W.	STEVENS DRIVE	<b>T-2294</b>
CHECKED: J.A.W.	IOWA CITY, IOWA	SHEET 4 OF 12
DATE: 04-19-23	DOT #607311G MILEPOST #28.31	



**NOTES:**

1. ALL WIRING TO BE \*16 AWG UNLESS NOTED OTHERWISE.
2. GROUND SHIELDS/DRAIN WIRES AT RELAY CASE.
3. SHIELDS/DRAIN WIRES MUST FLOAT AT SENSOR JUNCTION BOX.
4. IF SHIELDS PASS THROUGH INTERMEDIATE JUNCTION BOX, DO NOT GROUND.
5. DSS COLOR CODE TO CABLE PAIRS:

DSS	PAIR	COLOR
BROWN	1	WHITE
YELLOW	1	BLACK
GREEN	2	WHITE
WHITE	2	BLACK
	ETC.	



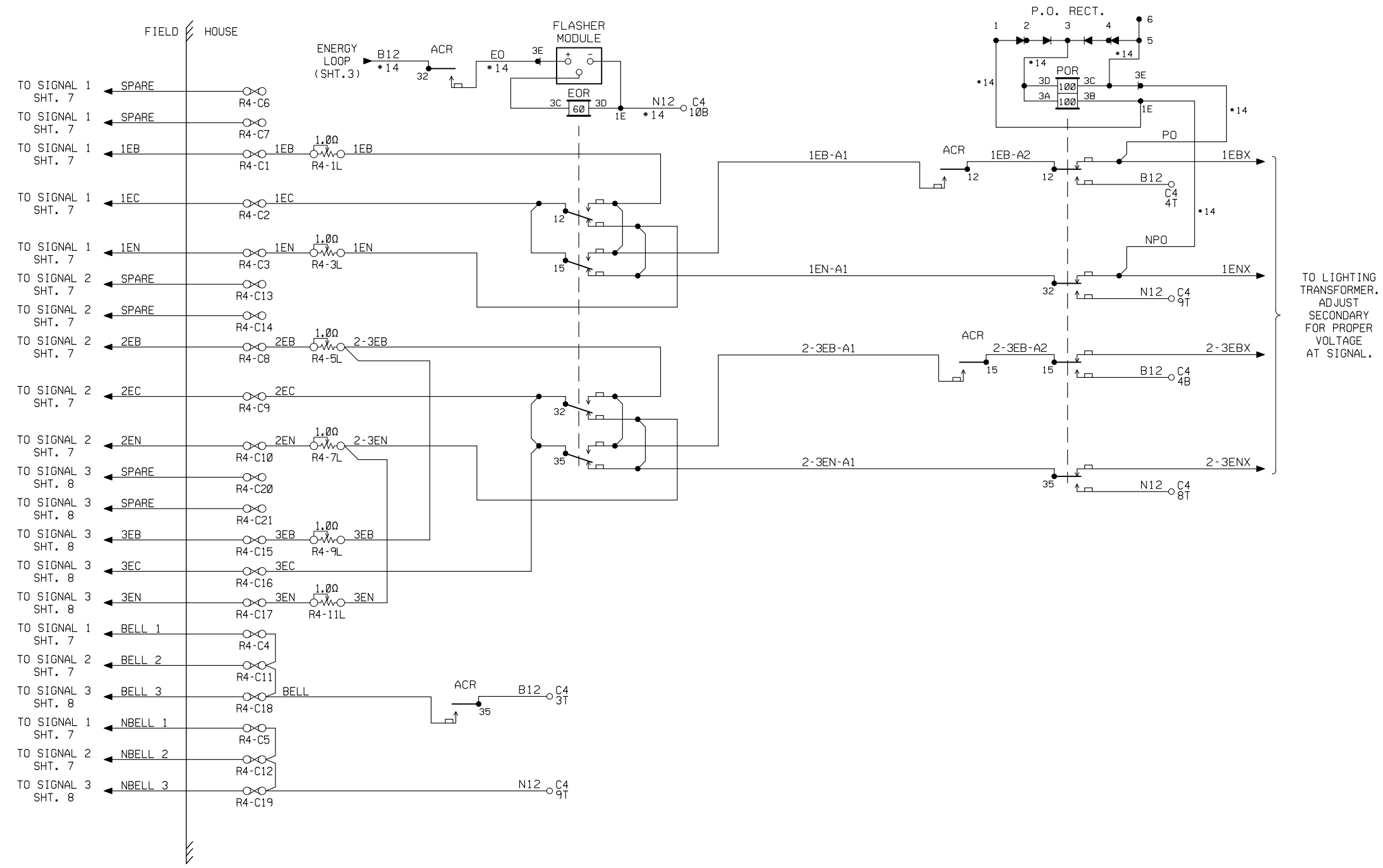
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**CEDAR RAPIDS & IOWA CITY RAILWAY CO.**

DRAWN: J.G.C.	ACS CIRCUITS	DRAWING NO.
DESIGNED: J.A.W.	STEVENS DRIVE	T-2294
CHECKED: J.A.W.	IOWA CITY, IOWA	SHEET 6 OF 12
DATE: 04-19-23	DOT #607311G MILEPOST #28.31	



**NOTES:**  
 1. ALL WIRING TO BE #10 AWG UNLESS NOTED OTHERWISE.

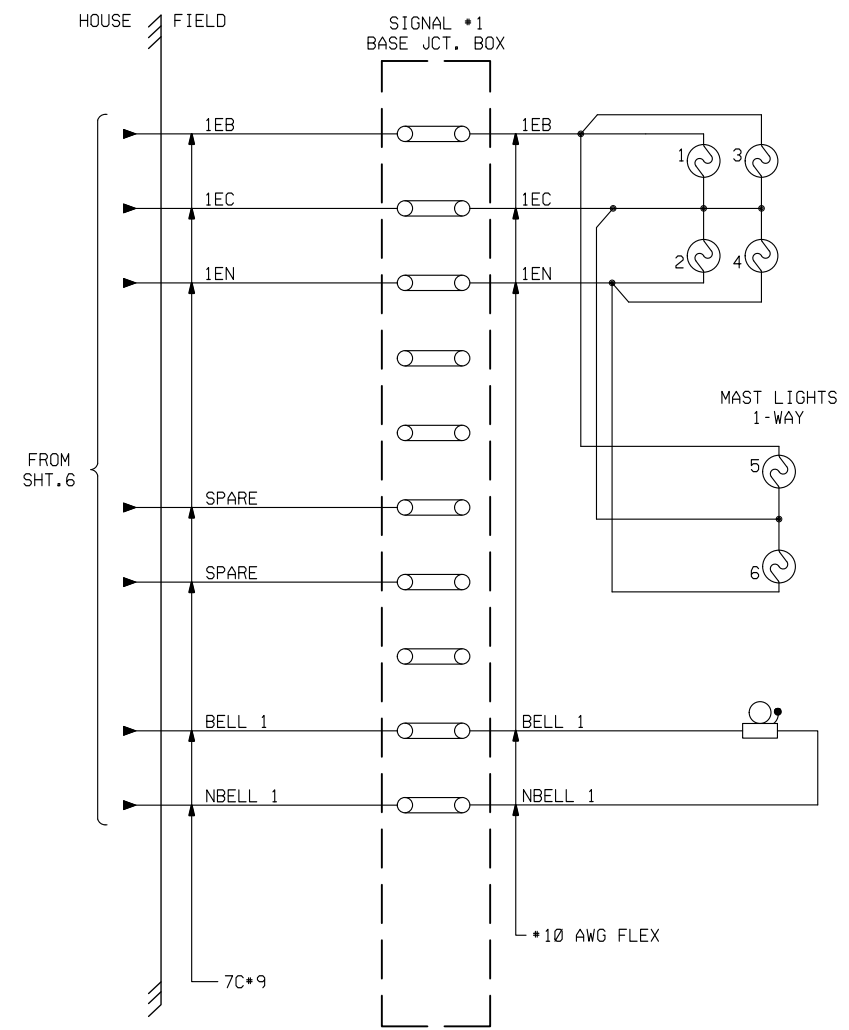
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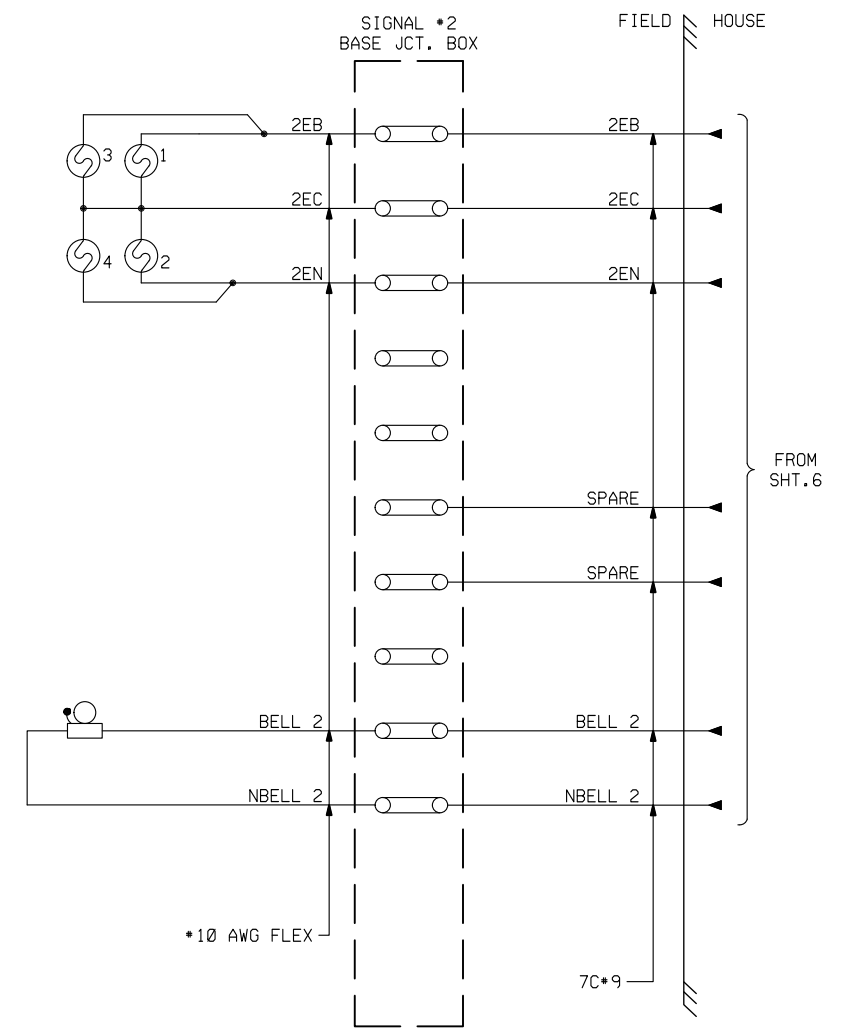
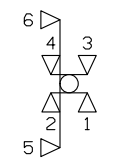


**CEDAR RAPIDS & IOWA CITY RAILWAY CO.**

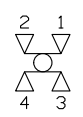
DRAWN: J.G.C. DESIGNED: J.A.W. CHECKED: J.A.W. DATE: 04-19-23	LAMP CONTROL CIRCUITS STEVENS DRIVE IOWA CITY, IOWA DOT #607311G MILEPOST #28.31	DRAWING NO. <b>T-2294</b> SHEET 6 OF 12
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SIG #1



SIG #2



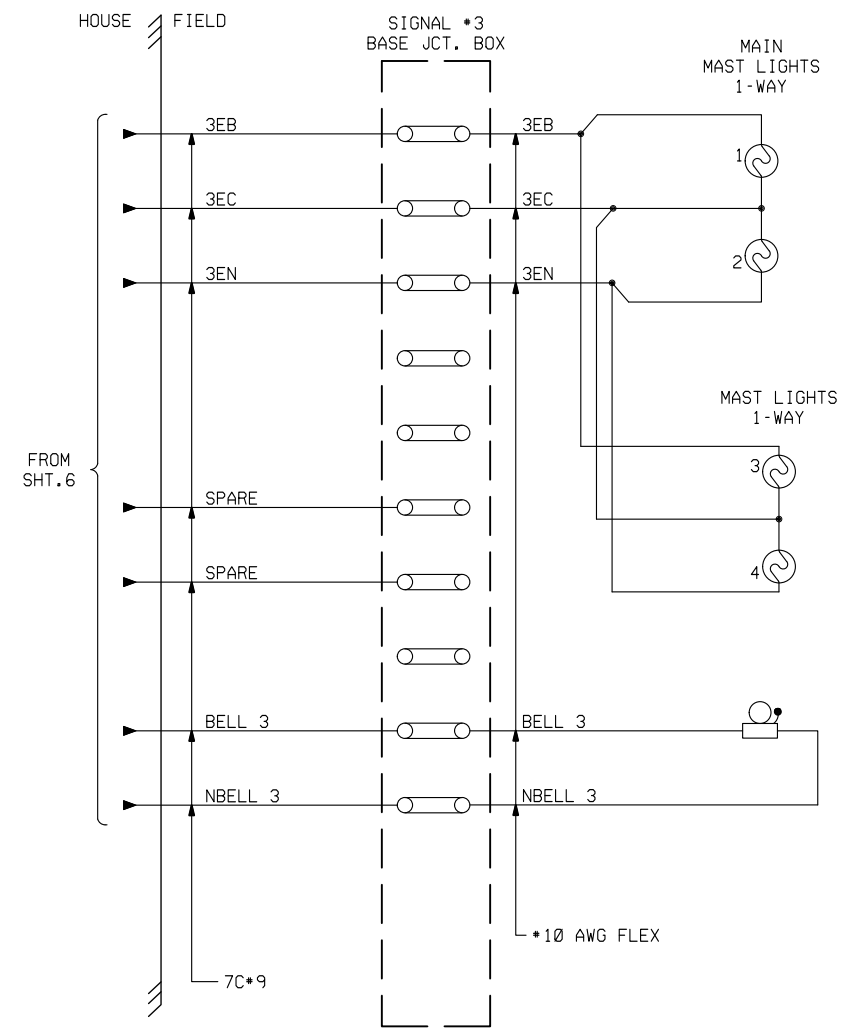
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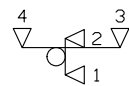


CEDAR RAPIDS & IOWA CITY RAILWAY CO.

DRAWN: J.G.C.	SIGNAL 1 AND 2 LIGHTS	DRAWING NO.
DESIGNED: J.A.W.	STEVENS DRIVE	T-2294
CHECKED: J.A.W.	IOWA CITY, IOWA	SHEET 7 OF 12
DATE: 04-19-23	DOT #607311G MILEPOST #28.31	



SIG #3



REVISIONS

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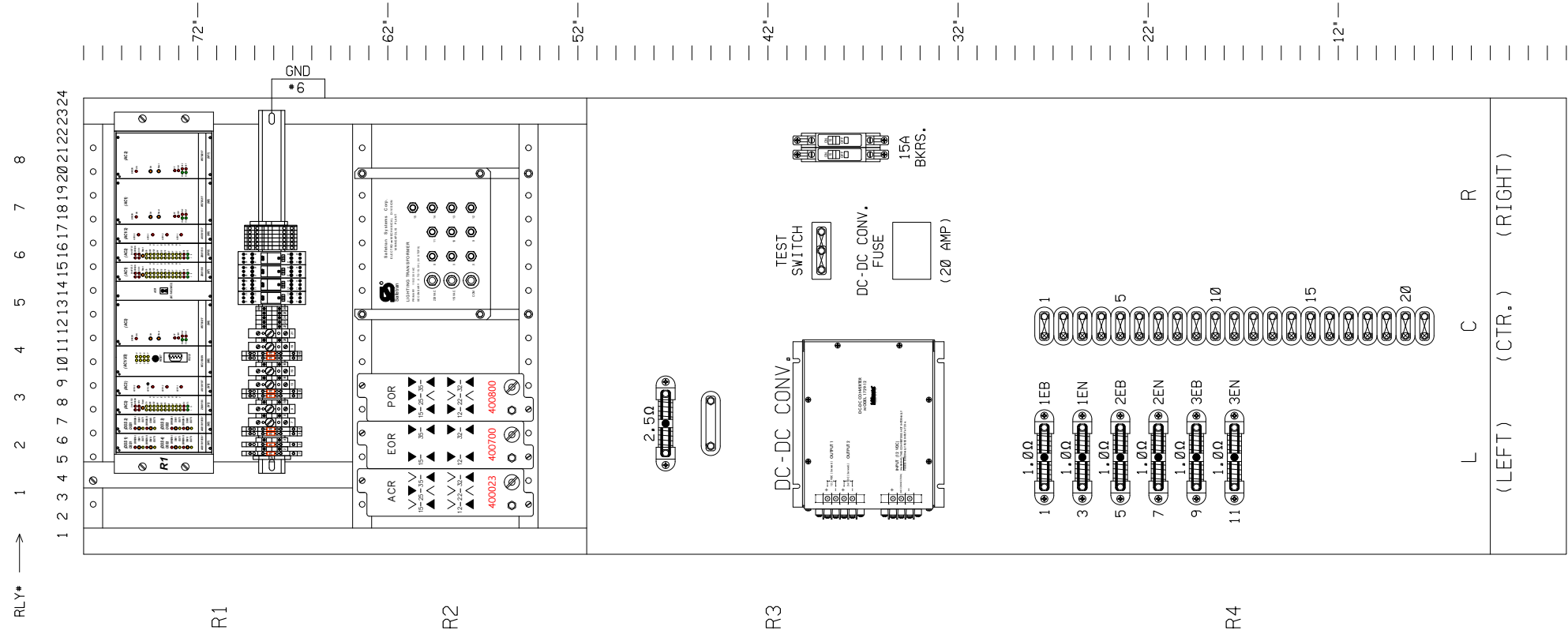
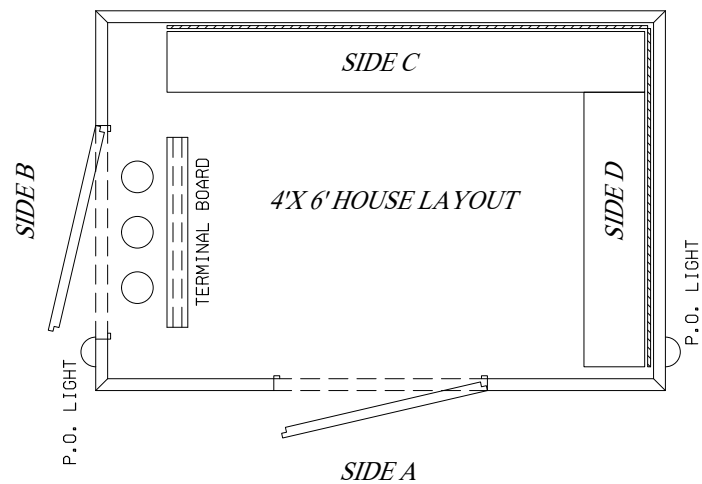
CEDAR RAPIDS & IOWA CITY RAILWAY CO.

DRAWN: J.G.C.  
DESIGNED: J.A.W.  
CHECKED: J.A.W.  
DATE: 04-19-23

SIGNAL 3 LIGHTS  
STEVENS DRIVE  
IOWA CITY, IOWA  
DOT #607311G MILEPOST #28.31

DRAWING NO.  
**T-2294**  
SHEET 8 OF 12





1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24  
 78" X 24" TERMINAL BOARD

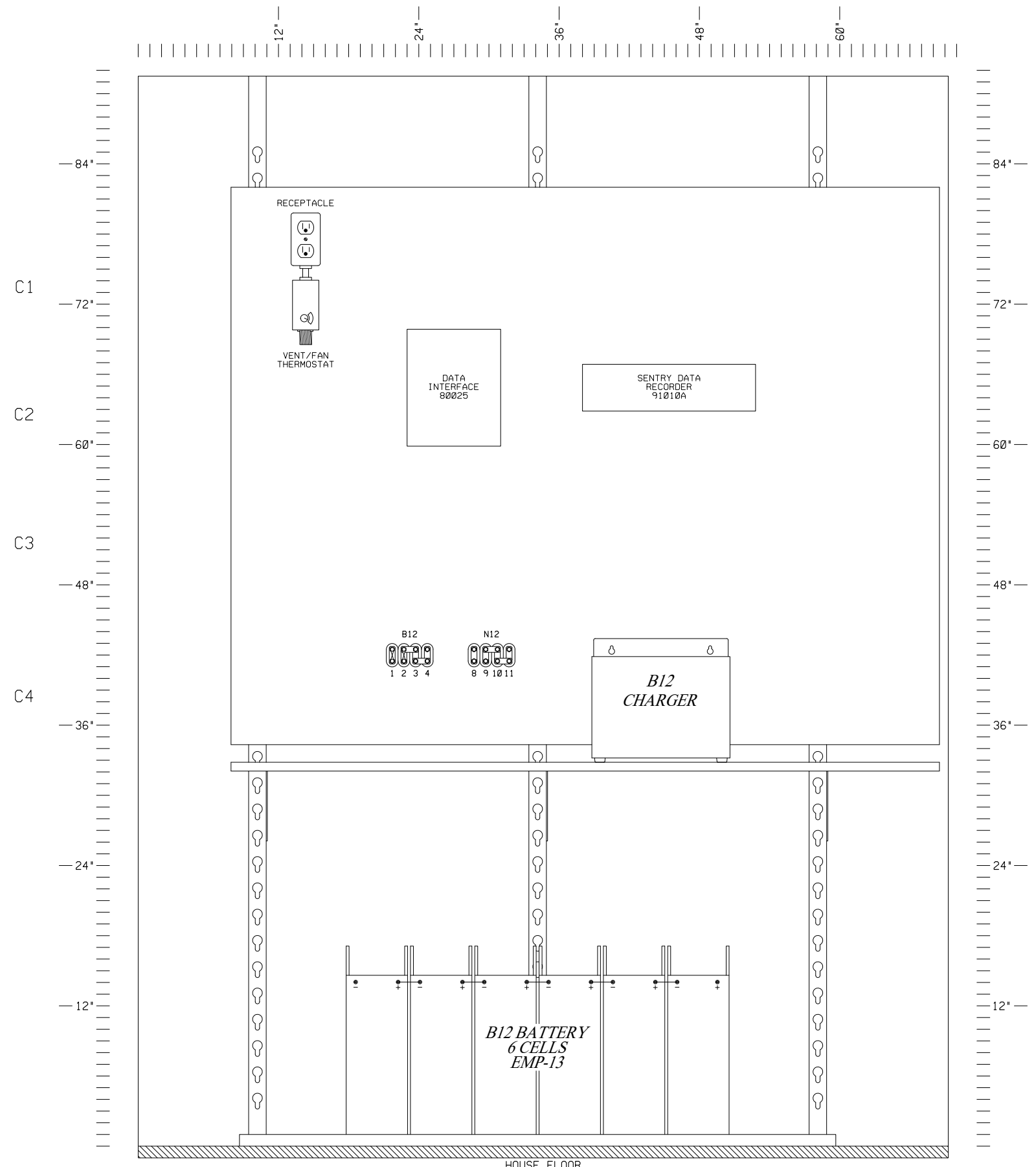
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CEDAR RAPIDS & IOWA CITY RAILWAY CO.

DRAWN: J.G.C.	TERMINAL BOARD	DRAWING NO.
DESIGNED: J.A.W.	STEVENS DRIVE	T-2294
CHECKED: J.A.W.	IOWA CITY, IOWA	SHEET 9 OF 12
DATE: 04-19-23	DOT #607311G MILEPOST #28.31	



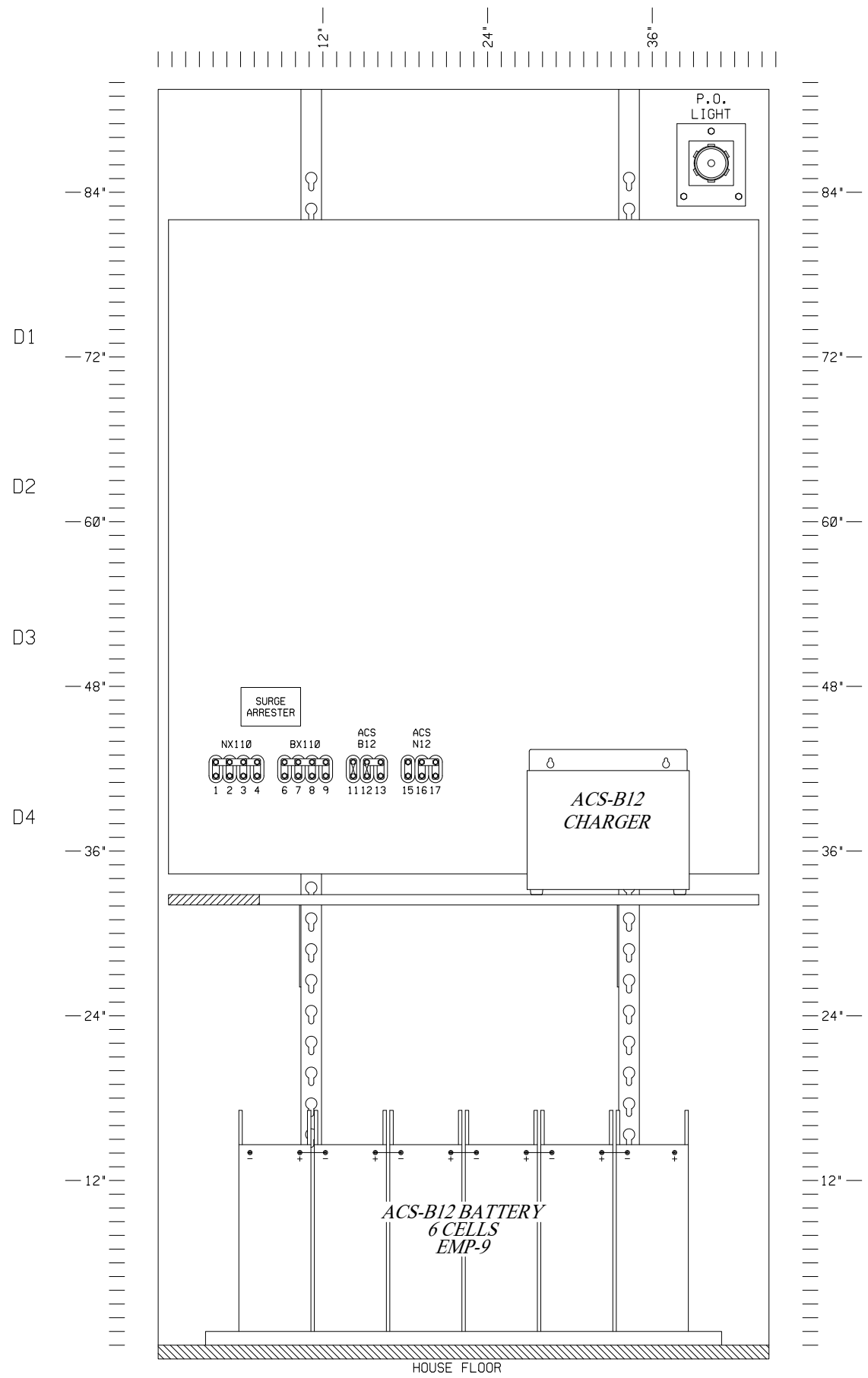
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Safety for Rail  
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810 Skyline Drive  
Marion, Illinois 62959  
618-993-8513

CEDAR RAPIDS & IOWA CITY RAILWAY CO.

DRAWN: J.G.C. DESIGNED: J.A.W. CHECKED: J.A.W. DATE: 04-19-23	SIDE C LAYOUT STEVENS DRIVE IOWA CITY, IOWA DOT #607311G MILEPOST #28.31	DRAWING NO. <b>T-2294</b> SHEET 10 OF 12
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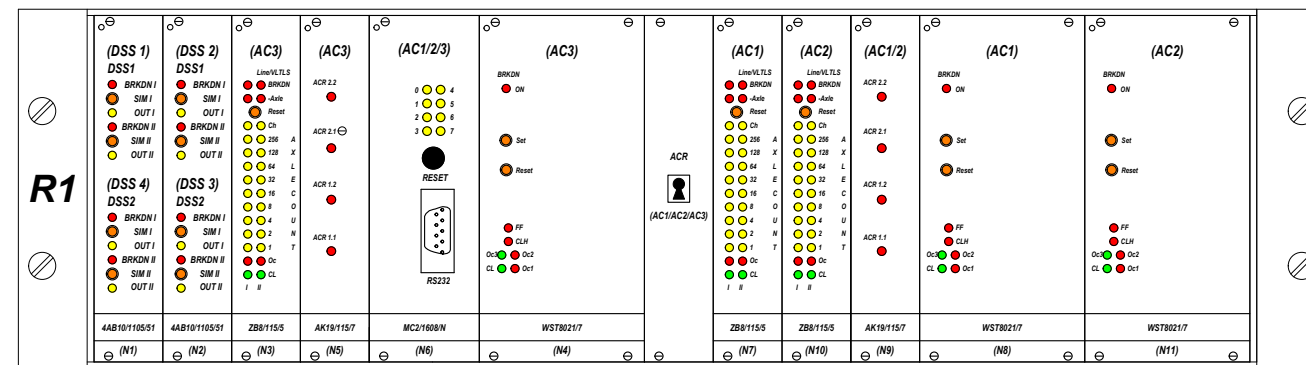
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CEDAR RAPIDS & IOWA CITY RAILWAY CO.

DRAWN: J.G.C.	SIDE D LAYOUT	DRAWING NO.
DESIGNED: J.A.W.	STEVENS DRIVE	T-2294
CHECKED: J.A.W.	IOWA CITY, IOWA	SHEET 11 OF 12
DATE: 04-19-23	DOT #607311G MILEPOST #28.31	



R1

REVISIONS

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CEDAR RAPIDS & IOWA CITY RAILWAY CO.

DRAWN: J.G.C.	CARD CAGE PANELS	DRAWING NO.
DESIGNED: J.A.W.	STEVENS DRIVE	T-2294
CHECKED: J.A.W.	IOWA CITY, IOWA	SHEET 12 OF 12
DATE: 04-19-23	DOT #6073116 MILEPOST #28.31	