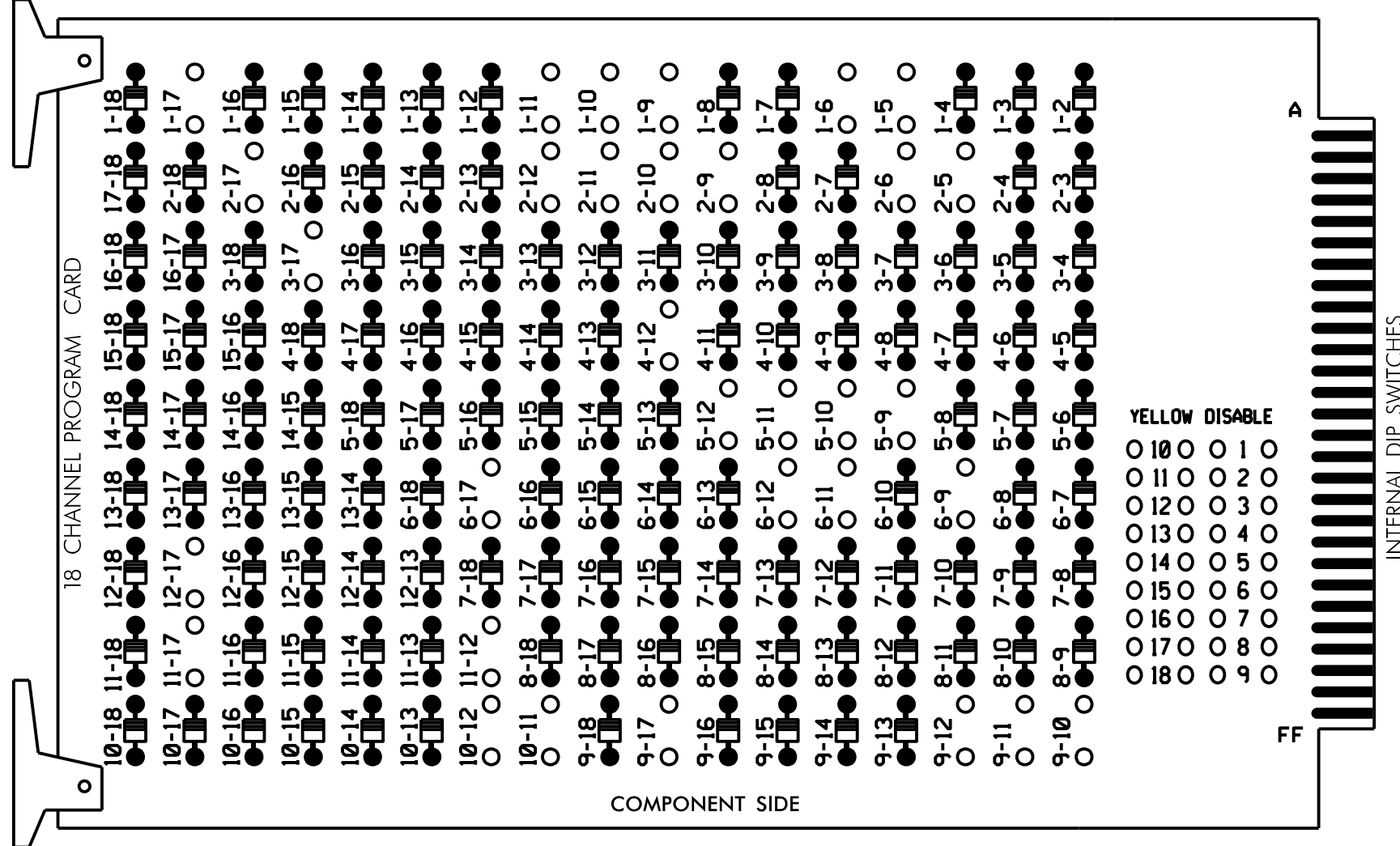


18 CHANNEL IP CONFLICT MONITOR

PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS 1-5, 1-6, 1-9, 1-10, 1-11, 1-17, 2-5, 2-6, 2-9, 2-10, 2-11, 2-12, 2-17, 3-17, 4-12, 5-9, 5-10, 5-11, 5-12, 6-9, 6-11, 6-12, 6-17, 9-10, 9-11, 9-12, 9-17, 10-11, 10-12, 11-12, 11-17 AND 12-17.



REMOVE JUMPERS AS SHOWN

NOTES:

- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
- Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
- Ensure that Red Enable is active at all times during normal operation.
- Integrate monitor with Ethernet network in cabinet.

NOTES

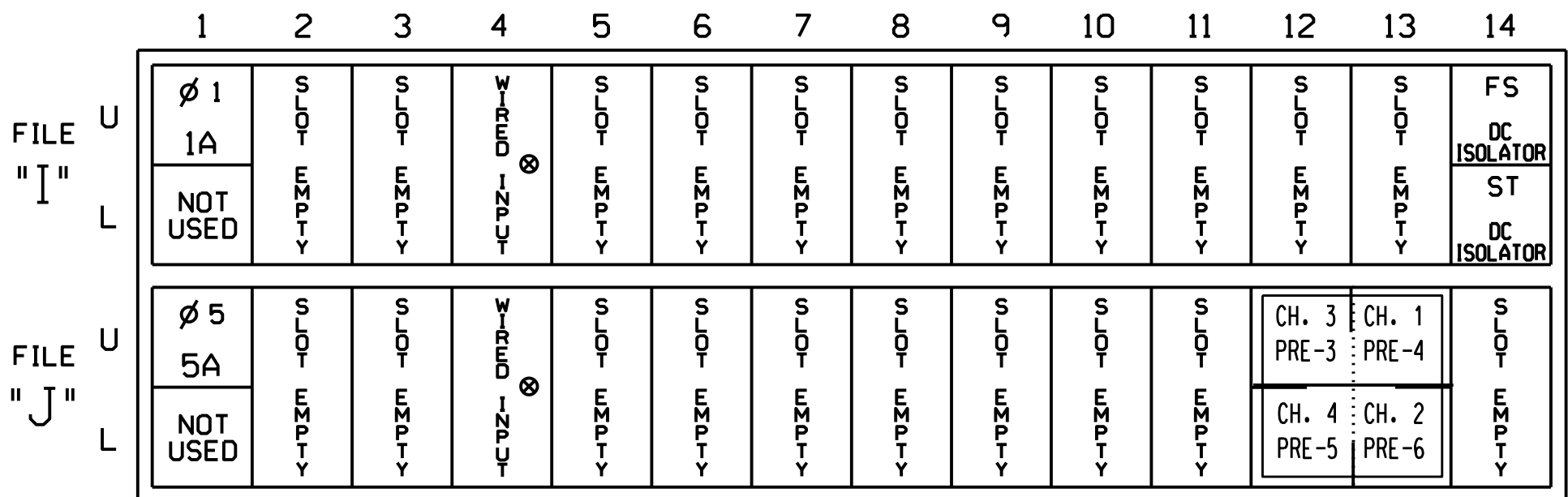
- To prevent "flash-conflict" problems, insert red flash program blocks for all unused vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the Signal Plans.
- Enable Simultaneous Gap-Out for all phases.
- Disable all phases for Startup in Green and Yellow Flash.
- Program phases 2 and 6 as First Phases.
- Program overlaps 1 and 5 as Wag Overlaps.
- The cabinet and controller are part of the Jacksonville Signal System.

EQUIPMENT INFORMATION

CONTROLLER.....2070
CABINET.....332 W/ AUX
SOFTWARE.....ECONOLITE OASIS
CABINET MOUNT.....BASE
OUTPUT FILE POSITIONS...18 WITH AUX. OUTPUT FILE
LOAD SWITCHES USED.....S1,S2,S4,S5,S7,S8,AUX S1,AUX S2,AUX S3,
AUX S4,AUX S5
PHASES USED.....1,2,3,4,5,6
OVERLAP "A".....1+2
OVERLAP "B".....5
OVERLAP "C".....5+6
OVERLAP "D".....2+4
OVERLAP "E".....3+6

INPUT FILE POSITION LAYOUT

(front view)



EX.: 1A, 2A, ETC. = LOOP NO.'S

⊗ Wired Input - Do not populate slot with detector card

↑ FS = FLASH SENSE
ST = STOP TIME
PRE = PREEMPTS

4 CHANNEL TOMAR OSP CARD
INSERT CARD INTO
SLOT J13

NOTE: SEE TYPICAL
TOMAR FIELD
WIRE DETAIL
ON SHEET 5.

INPUT FILE POSITION LEGEND: J2L

FILE J
SLOT 2
LOWER

INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT ASSIGNMENT NO.	DETECTOR NO.	NEMA PHASE	CALL	EXTEND	FULL TIME DELAY	STRETCH TIME	DELAY TIME
1A ¹	TB2-1,2	11U	56	18	1	1	Y	Y			15
	-	J4U	48	10 ★	26	6	Y	Y			
	-	11U	56	18 ★	51	1	Y	Y			
5A ²	TB3-1,2	J1U	55	17	5	5	Y	Y			15
	-	14U	47	9 ★	22	2	Y	Y			
	-	J1U	55	17 ★	55	5	Y	Y			

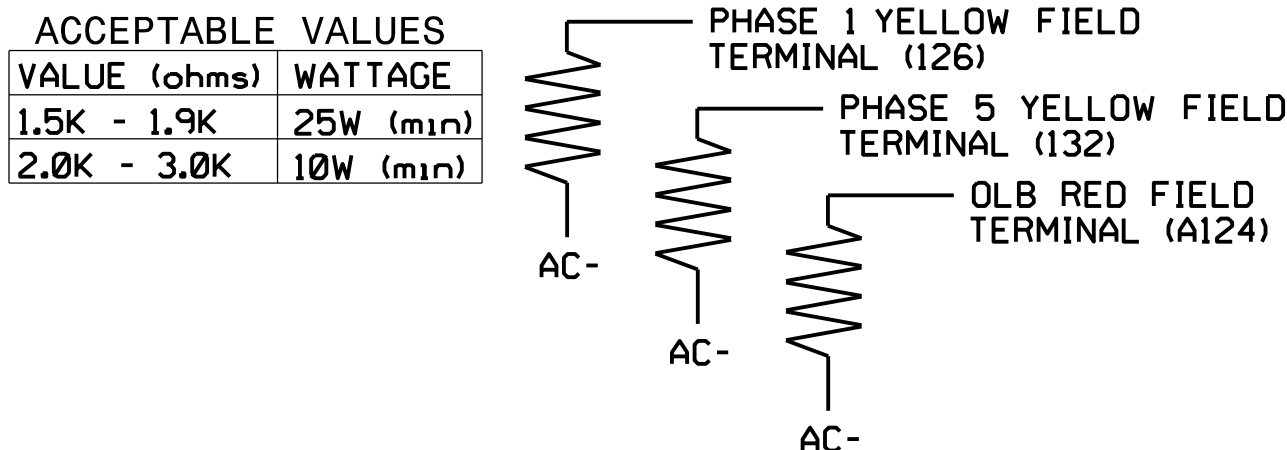
¹Add jumper from 11-W to J4-W. on rear of input file.

²Add jumper from J1-W to 14-W. on rear of input file.

★ See Input Page Assignment programming detail on sheets 3 and 4.

LOAD RESISTOR INSTALLATION DETAIL

(install resistors as shown below)



VALUE (ohms)	WATTAGE
1.5K - 1.9K	25W (min)
2.0K - 3.0K	10W (min)

SPECIAL DETECTOR NOTE

Install a multizone microve detection zone for vehicle detection. Perform installation according to manufacturer's directions and NCDOT engineer-approved mounting locations to accomplish the detection schemes shown on the Signal Design Plans.

For detection zones 1A and 5A, the equipment placement and slots reserved for wired inputs are typical for a NCDOT installation. Inputs associated with these slots are compatible with time of day instructions located on sheets 3 and 4 of this electrical detail.

SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S3	S4	S5			S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6	
CH1 CHANNEL NO.	1	2	13	3	4			14	5	6	15	7	8	16	9	10	17	11	12	18	
PHASE	1	2	2 PED	3	4			4 PED	5	6	6 PED	7	8	8 PED	OLA	OLB	* OLE	OLC	OLD	SPARE	
SIGNAL HEAD NO.	11★	21,22	NU	31	32,33	41	42	43	NU	51★	61,62	NU	NU	NU	NU	11★	32	63★	51★	23★	NU
RED		128		116	116		101	101			134					*	A111		A101		
YELLOW	*	129		117	117		102	102		*	135										
GREEN		130		118	118		103	103			136										
RED ARROW						101									A121			A114			
YELLOW ARROW						102									A122	A125	A112	A115	A102		
FLASHING YELLOW ARROW															A123		A113	A116	A103		
GREEN ARROW	127			118		103	103			133					A126						

NU = Not Used

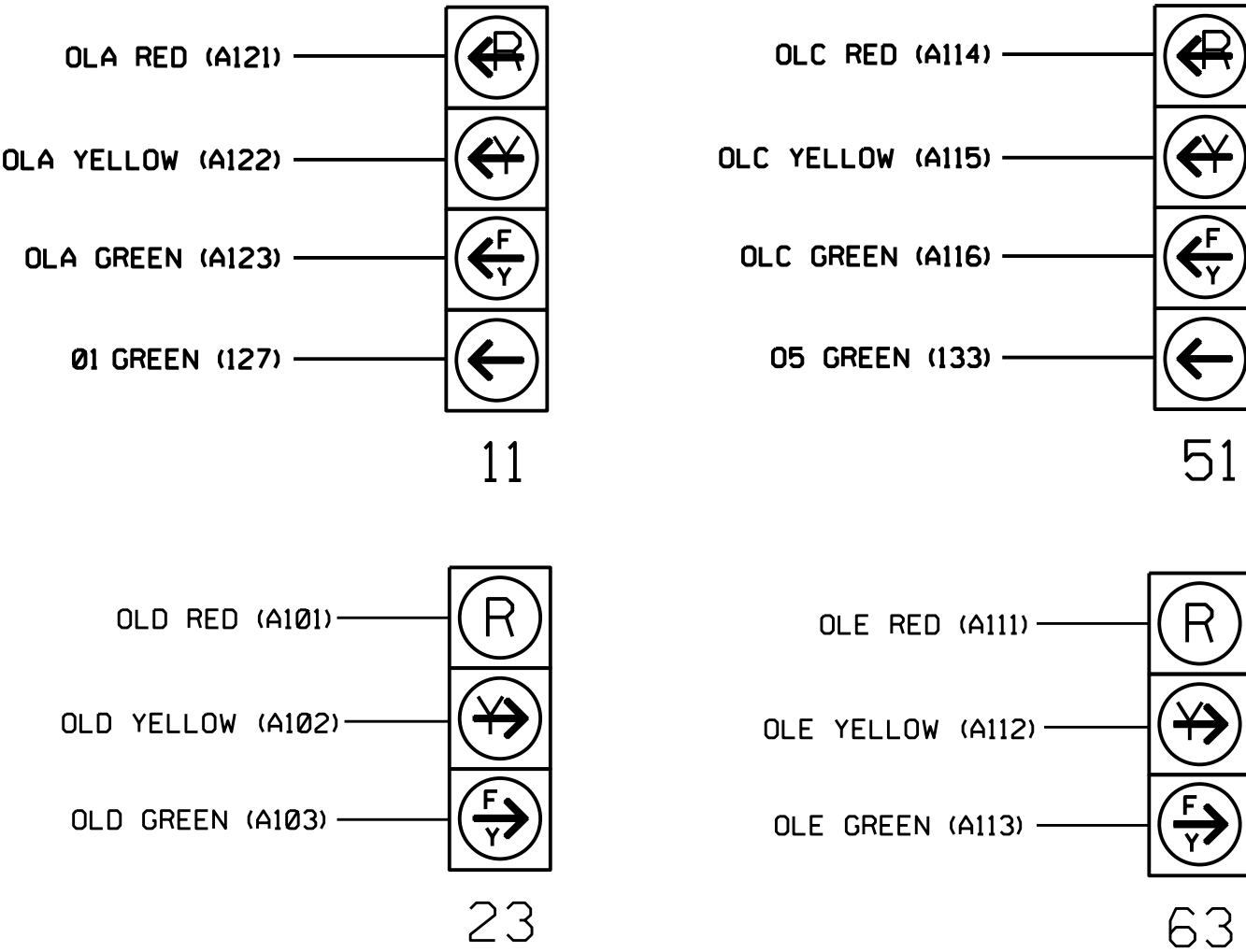
★ See pictorial of head wiring in detail below.

* Denotes install load resistor. See load resistor installation detail this sheet.

** Requires special programming and output remapping. See sheet 6.

FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



NOTE

The sequence display for signal heads 11 and 51 requires special logic programming. See sheet 2 for programming instructions.

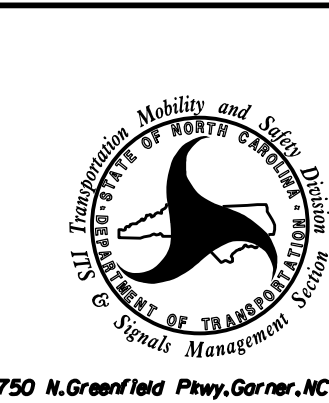
Project #: 230907

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 03-0822T
DESIGNED: May 2025
SEALED: 07/07/2025
REVISED: N/A

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NCBELS FIRM LICENSE NO. C-2822

Temporary Design; (TMP 4-5,10-11,16,19-20,25-26,31-32)
Electrical Detail - Sheet 1 of 6

ELECTRICAL AND PROGRAMMING DETAILS FOR:



NC 53 (Western Boulevard)
at
SR 2714 (Jacksonville Parkway)/
Gateway North
Division 3 Onslow County Jacksonville
PLAN DATE: May 2025 REVIEWED BY: L. Boyer
PREPARED BY: J Dollarhite RKA PROJ. NO.:
REVISIONS
INIT. DATE
SIGNATURE DATE

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL

SEAL
030912
ENGINEER
L. M. BOYER
07/07/2025
SIGNATURE DATE
SIG. INVENTORY NO. 03-0822T