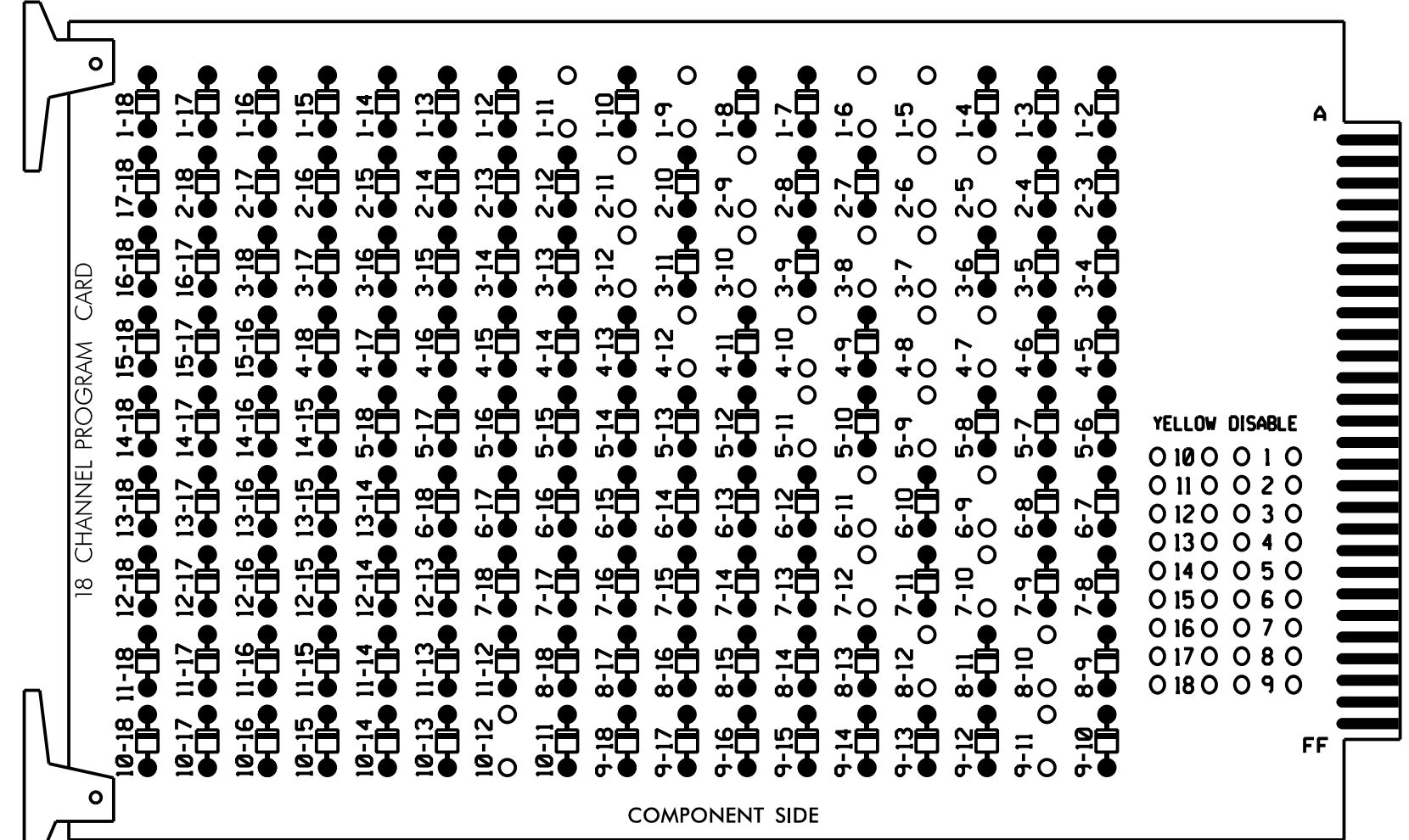


18 CHANNEL CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS 1-5, 1-6, 1-9, 1-11, 2-5, 2-6, 2-9, 2-11, 3-7, 3-8, 3-10, 3-12, 4-7, 4-8, 4-10, 4-12, 5-9, 5-11, 6-9, 6-11, 7-10, 7-12, 8-10, 8-12, 9-11, AND 10-12.



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 are present on the monitor board.
- Ensure that Red Enable is active at all times during normal operation.
- Connect serial cable from conflict monitor to comm. port 1 of 2070 controller. Ensure conflict monitor communicates with 2070.

■ = DENOTES POSITION OF SWITCH

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.
- Program phases 4 and 8 for Dual Entry.
- Enable Simultaneous Gap-Out for all Phases.
- Program phases 2 and 6 for Startup in Green.
- Program phases 2 and 6 for Yellow Flash, and overlaps 1 and 2 as Wag Overlaps.
- The cabinet and controller are part of the Wilmington 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,S3,*S4,S5,S7,S8,*S9,S10,S11,AUX S1,AUX S2,AUX S4,AUX S5
 PHASES USED.....1,2,3,4,5,6,7,8
 OVERLAP "A".....1+2
 OVERLAP "B".....3+4
 OVERLAP "C".....5+6
 OVERLAP "D".....7+8

* Used for Advanced Beacons

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	
CMU 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	SPARE	OLC	OLD	SPARE	
SIGNAL HEAD NO.	11	21,22	23,24	31	41,42	NU	42	51	61,62	25,26	62	71	81,82	NU	11	31	NU	51	71
RED		128			101		*		134		*		107						
YELLOW	*	129		*	102				135				108						
GREEN		130			103				136				109						
RED ARROW													A121	A124		A114	A101		
YELLOW ARROW							132			123			A122	A125		A115	A102		
FLASHING YELLOW ARROW													A123	A126		A116	A103		
GREEN ARROW	127			118			133	133		124	124								
PED YELLOW													** 114						
													** 120						

NU = Not Used

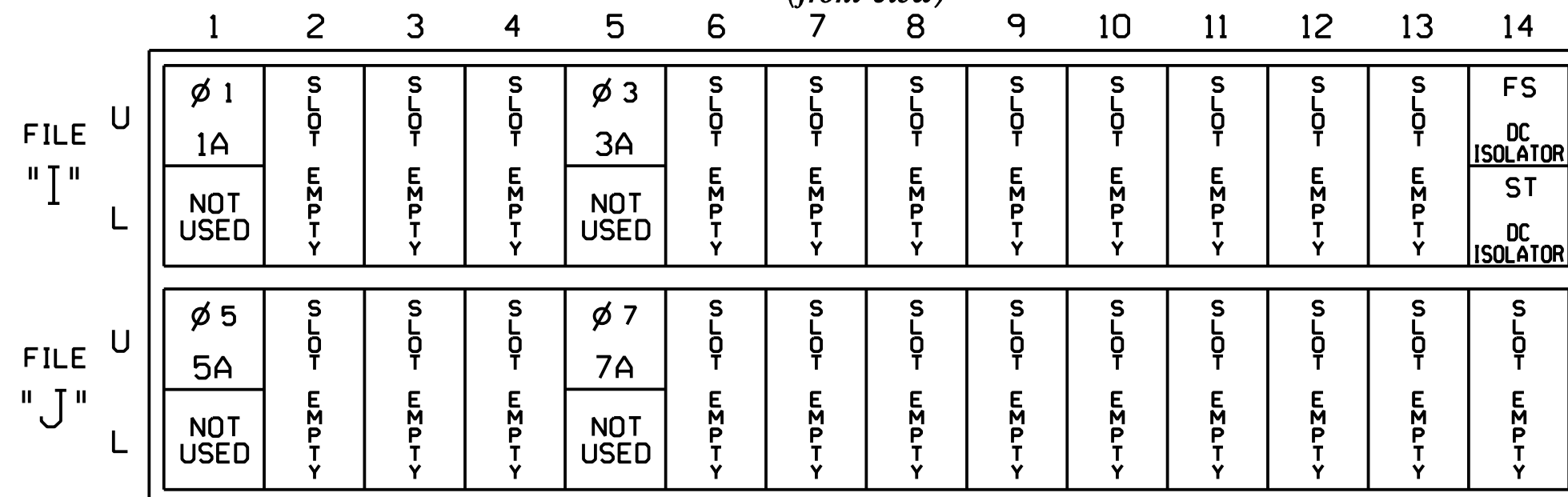
* Denotes install load resistor. See load resistor installation detail this sheet.

** Advance Beacons will be wired to S2P-Y and S6P-Y. See wiring and programming detail on sheet 2.

* See pictorial of head wiring in detail this sheet.

INPUT FILE POSITION LAYOUT

(front view)



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

FS = FLASH SENSE
ST = STOP TIME

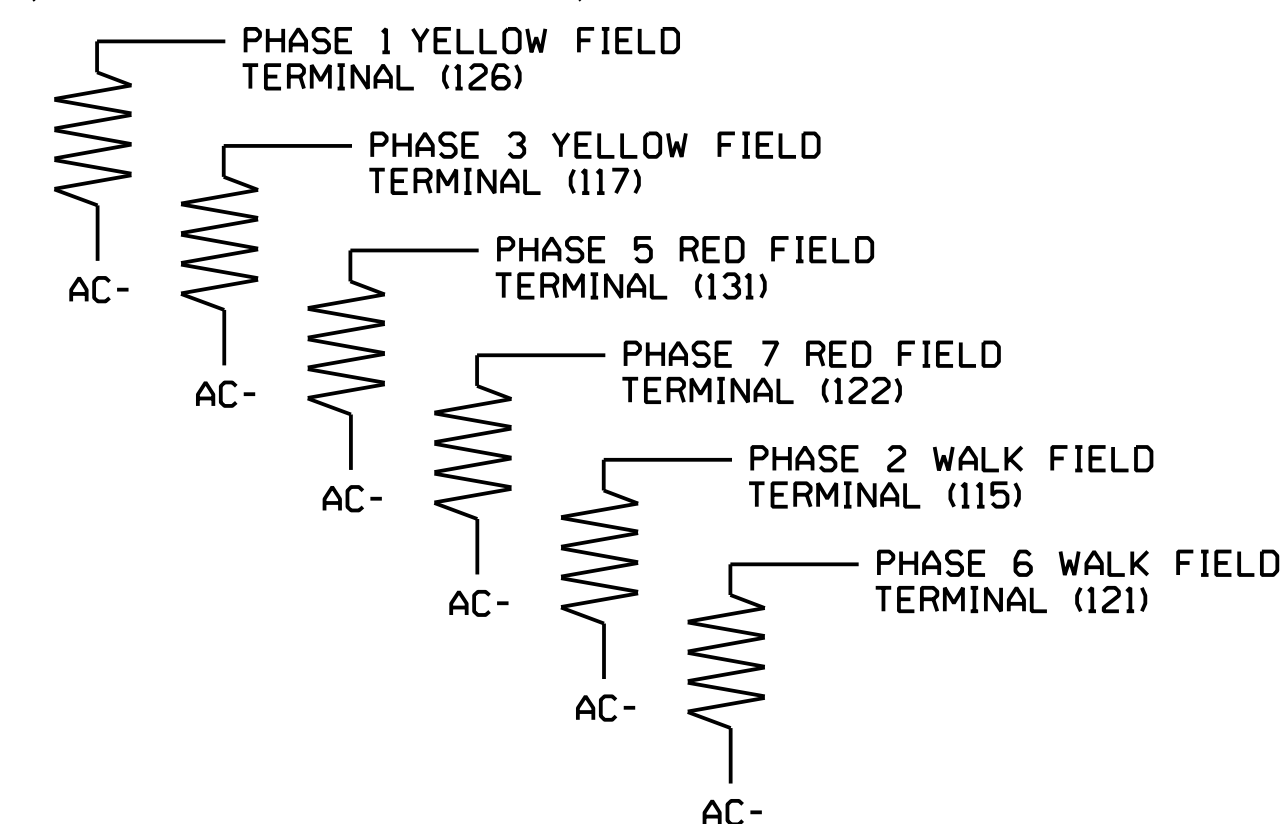
SPECIAL DETECTOR NOTE

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

LOAD RESISTOR INSTALLATION DETAIL

(install resistors as shown below)

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

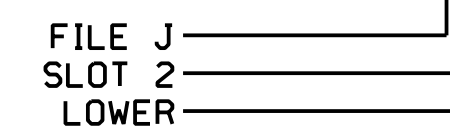


INPUT FILE CONNECTION & PROGRAMMING CHART

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	TB2-1,2	I1U	56	18	1	1	Y	Y			15
	-	J4U	48	10*	26	6	Y	Y			
	-	I1U	56	18*	51	1	Y	Y			
3A	TB4-5,6	I5U	58	20	3	3	Y	Y			15
	-	J8U	50	12*	28	8	Y	Y			3
	-	I5U	58	20*	53	3	Y	Y			3
5A	TB3-1,2	J1U	55	17	5	5	Y	Y			15
	-	I4U	47	9*	22	2	Y	Y			
	-	J1U	55	17*	55	5	Y	Y			15
7A	TB5-5,6	J5U	57	19	7	7	Y	Y			15
	-	I8U	49	11*	24	4	Y	Y			
	-	J5U	57	19*	57	7	Y	Y			15

* See Input Page Assignment programming details on sheets 4, 5, 6, and 7.

INPUT FILE POSITION LEGEND: J2L



This plan supersedes the plan signed and sealed on 5/17/2024.

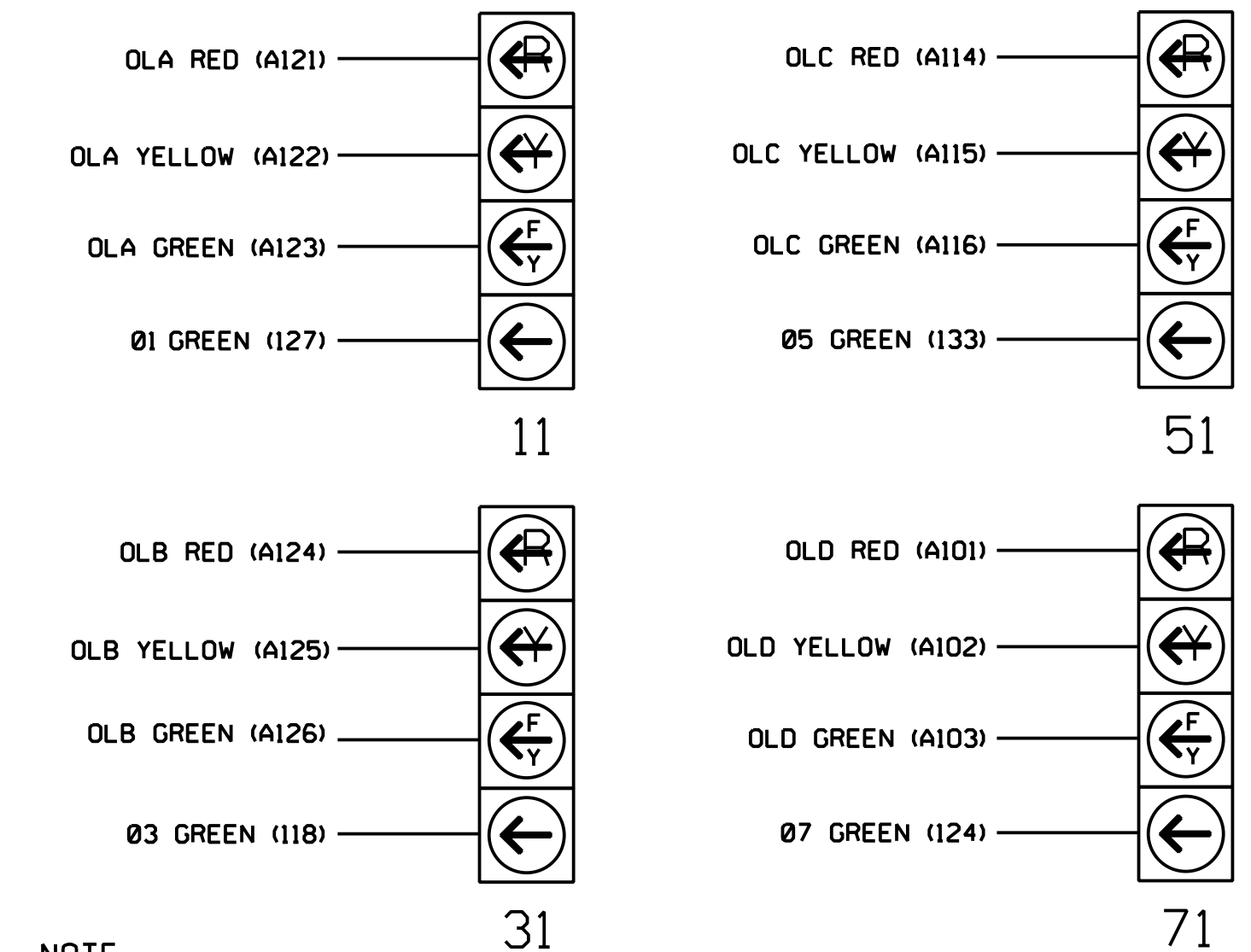
THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 03-0331T1
 DESIGNED: May 2022
 SEALED: 5/17/2024
 REVISED:



HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
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FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



NOTE

The sequence display for signal heads 11, 31, 51, and 71 requires special logic programming. See sheet 3 for programming instructions.

Signal Upgrade-
 Electrical Detail - Sheet 1 of 8
 (Construction Phase 1)

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

	ELECTRICAL AND PROGRAMMING DETAILS FOR: I-40 EB Ramp / US 117 - NC 132 (N. College Road) at SR 2048 (Gordon Rd)	SEAL NORTH CAROLINA PROFESSIONAL ENGINEER NATASHA R. SIMMONS
	Division 3 New Hanover County Wilmington PLAN DATE: August 2023 REVIEWED BY: N.K. Vlanich PREPARED BY: E.E. Tiller REVIEWED BY: N.R. Simmons	REVISIONS: _____ INITI: _____ DATE: _____ Signature: _____ DATE: 11/8/2024 Signature: _____ DATE: _____