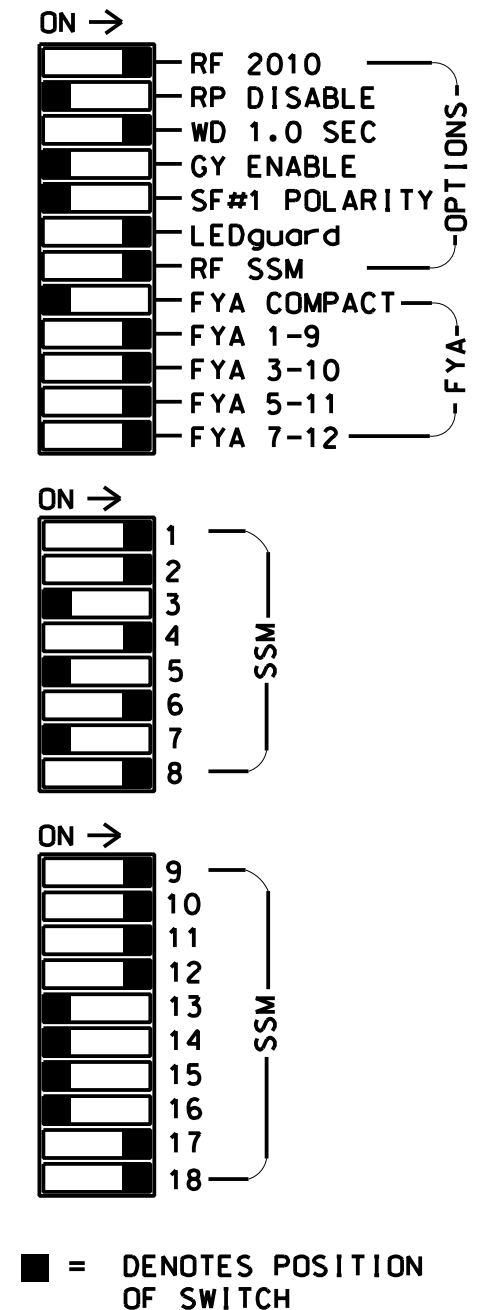
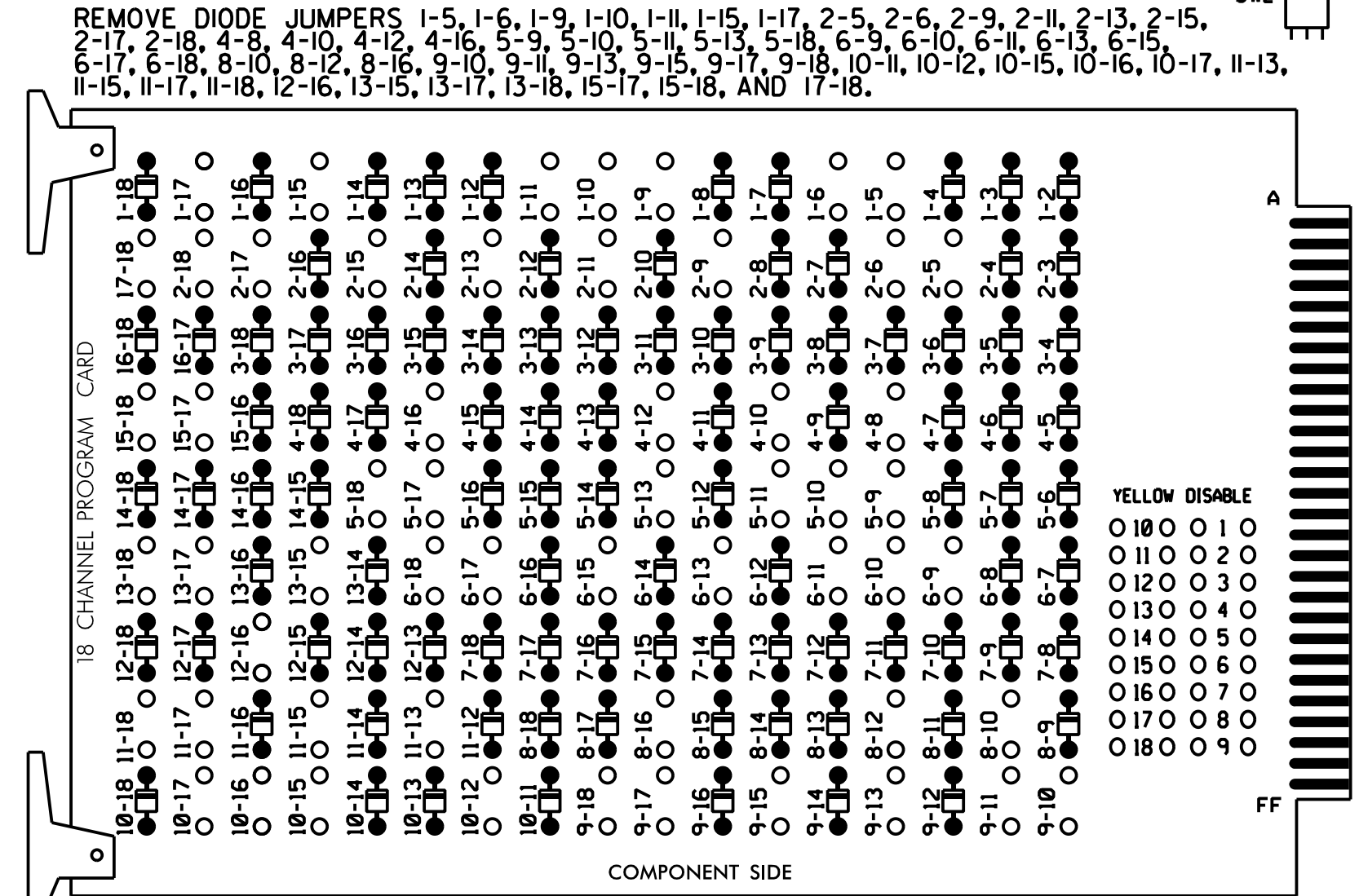


18 CHANNEL CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)



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, 2 and 5 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,S5,S7,S8,S9,S11,S12,AUX S1, AUX S2,AUX S3,AUX S4,AUX S5,AUX S6
 PHASES USED.....1,2,2 PED,4,5,6,6 PED,8,8 PED
 OVERLAP "A".....1+2
 OVERLAP "B".....1+8
 OVERLAP "C".....5+6
 OVERLAP "D".....8
 OVERLAP "E".....6
 OVERLAP "F".....2

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	OLE	OLC	OLD	OLF	
SIGNAL HEAD NO.	11	21,22	P21, P22	NU	42,43	NU	51	61,62	P61, P62	NU	81,82	P81, P82	11	83	63	51	41	23	
RED		128			101			134			107				A124			A104	
YELLOW	*	129			102		*	135			108								
GREEN		130			103			136			109								
RED ARROW														A121	A111	A114	A101		
YELLOW ARROW														A122	A125	A112	A115	A102	A105
FLASHING YELLOW ARROW														A123	A126	A113	A116	A103	A106
GREEN ARROW	127							133											
Hand				113						119		110							
Person				115						121		112							

NU = Not Used
 * Denotes install load resistor. See load resistor installation detail this sheet.
 * See pictorial of head wiring in detail this sheet.
 NOTE: Load switches AUX S3 and AUX S6 require output remapping. See Sheets 7 and 8 of this electrical detail for instructions.

INPUT FILE POSITION LAYOUT

(front view)

FILE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
U	∅ 1	S	S	S	S	S	S	S	S	S	S	∅ 2PED	∅ 6PED	FS
I	1A	-	-	-	-	-	-	-	-	-	-	DC ISOLATOR	DC ISOLATOR	DC ISOLATOR
L	NOT USED	-	-	-	-	-	-	-	-	-	-	NOT USED	∅ 8PED	ST
U	∅ 5	S	S	S	S	S	S	S	S	S	S	S	S	S
I	5A	-	-	-	-	-	-	-	-	-	-	-	-	-
L	NOT USED	-	-	-	-	-	-	-	-	-	-	-	-	-

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.

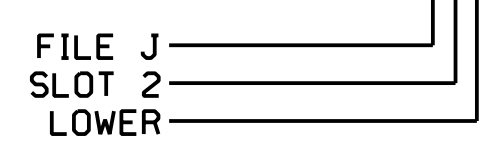
INPUT FILE CONNECTION & PROGRAMMING CHART

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			
5A	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			
PED PUSH BUTTONS											
P21,P22	TB8-4,6	I12U	67	29	PED 2	2 PED					
P61,P62	TB8-7,9	I13U	68	30	PED 6	6 PED					
P81,P82	TB8-8,9	I13L	70	32	PED 8	8 PED					

NOTE:
 INSTALL DC ISOLATORS IN INPUT FILE SLOTS 112 AND 113.

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

INPUT FILE POSITION LEGEND: J2L

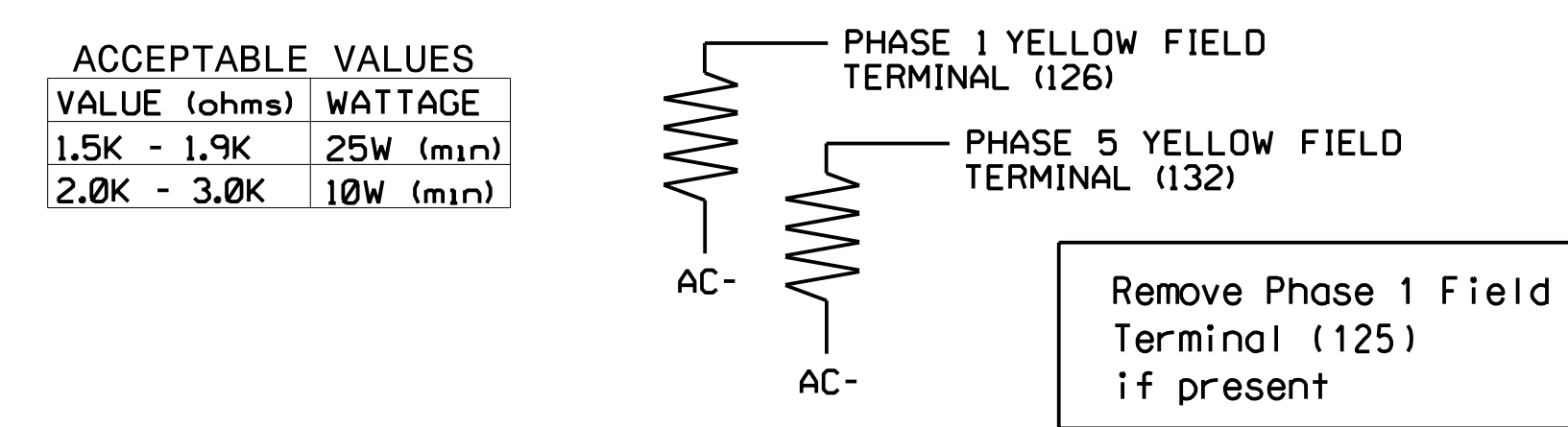


COUNTDOWN PEDESTRIAN SIGNAL OPERATION

Countdown Ped Signals are required to display timing only during Ped Clearance Interval. Consult Ped Signal Module user's manual for instructions on selecting this feature.

LOAD RESISTOR INSTALLATION DETAIL

(install resistors as shown below)

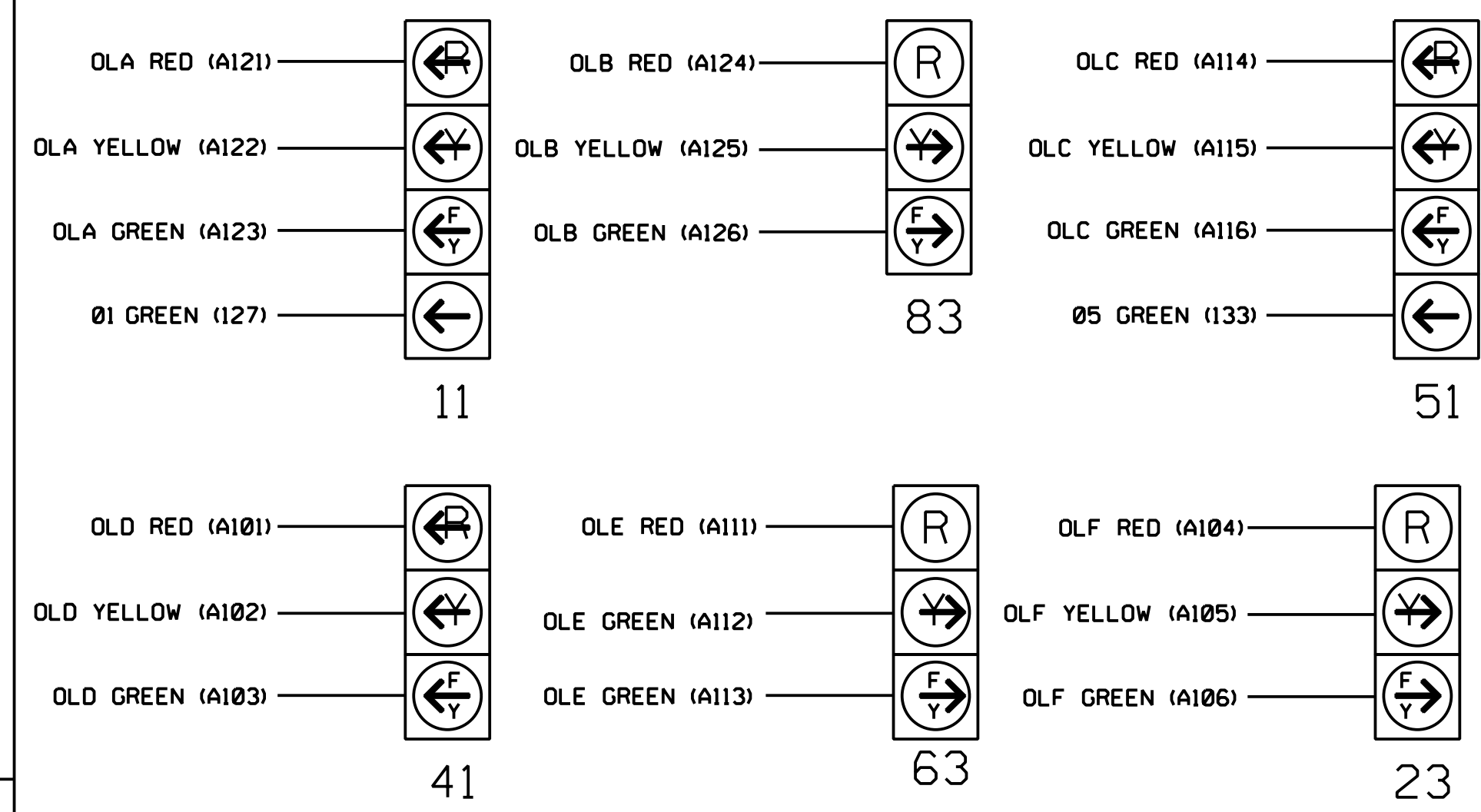


THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 03-0847
 DESIGNED: May 2022
 SEALED: 5/17/2024
 REVISED:

HNTB
 HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554
 (919) 546-8997

FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



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

Signal Upgrade - Final Design
 Electrical Detail - Sheet 1 of 8

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ELECTRICAL AND PROGRAMMING DETAILS FOR: SR 2048 (Gordon Rd) at SR 2698 (Netherlands Dr/ Eaton Elementary School)

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

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 031464
 N. ASHA R. SIMMONS

5/17/2024
 SIGNATURE DATE
 SIG. INVENTORY NO. 03-0847