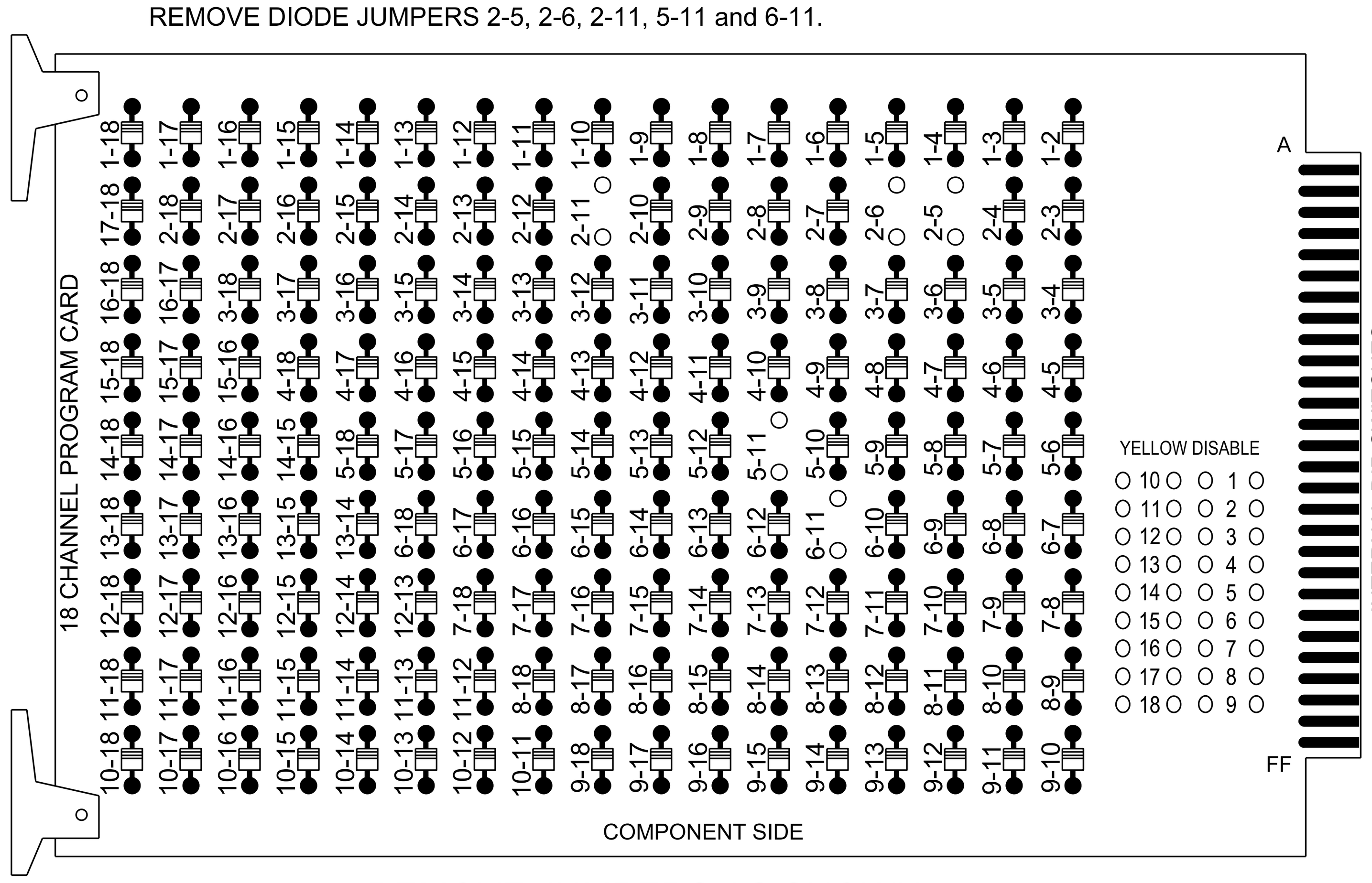
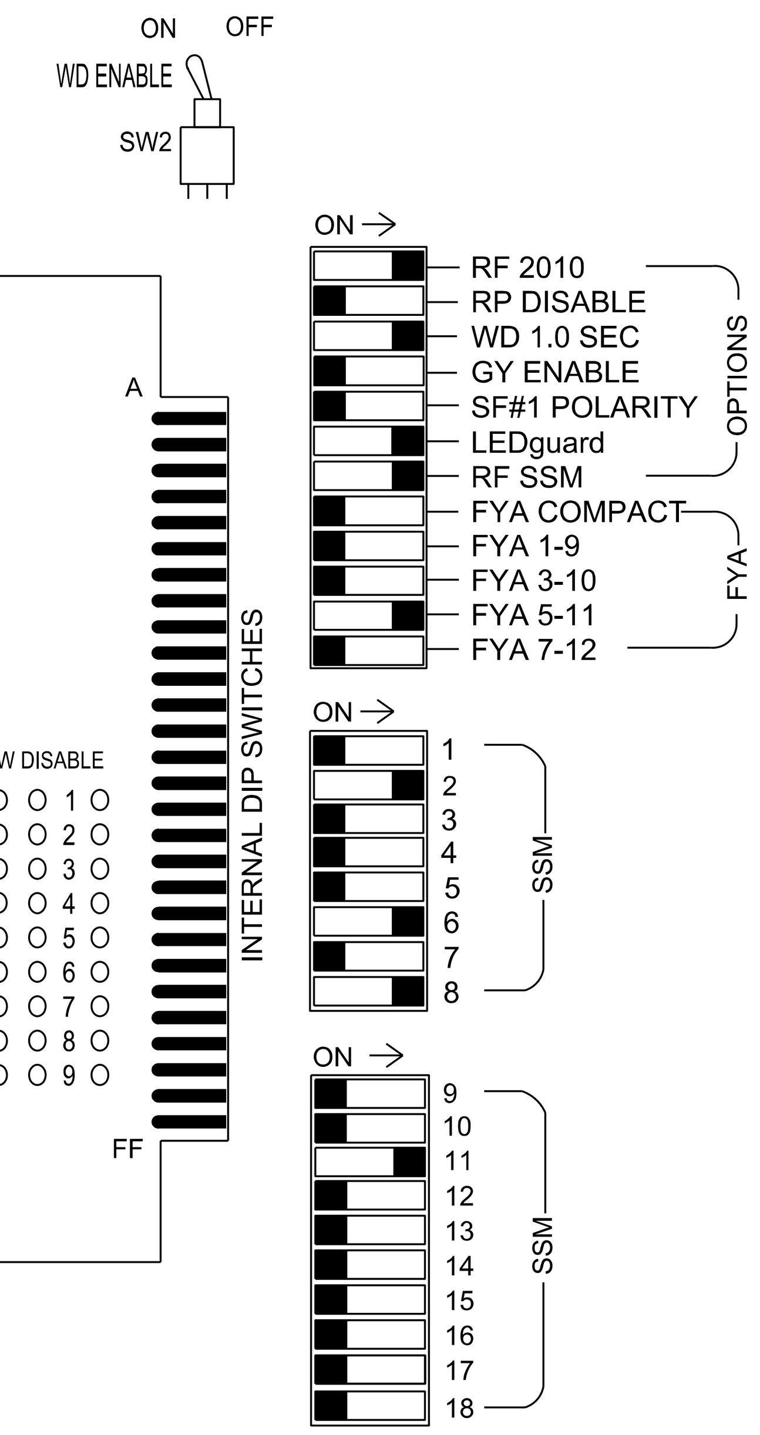
PROJECT REFERENCE NO.	SHEET NO.
BR-0041	Sig. 12.1

18 CHANNEL CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS 2-5, 2-6, 2-11, 5-11 and 6-11.





■ = DENOTES POSITION OF SWITCH

REMOVE JUMPERS AS SHOWN

NOTES:

1. Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
2. Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
3. Ensure that the Red Enable is active at all times during normal operation.
4. Connect serial cable from conflict monitor to comm. port 1 of 2070 controller. Ensure conflict monitor communicates with 2070.

NOTES

1. 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 plan.
2. Return controller to Factory Defaults before programming per this electrical detail.
3. Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.
4. If this signal will be managed by an ATMS software, enable controller and detector logging for all detectors used at this location.
5. The cabinet and controller are part of NC 87/ SR 2817 (Barnes Street) Closed Loop System. Signal System #: D07-10 Reidsville.

EQUIPMENT INFORMATION

Controller..2070LX
Cabinet..332 w/ Aux
Software..Q-Free MAXTIME
Cabinet Mount...................................BASE
Output File Positions..........................18 With Aux. Output File
Load Switches Used...........................S2, S7, S8, S11, AUX S4
Phases Used......................................2, 5, 6, 8
Overlap "1"..NOT USED
Overlap "2"..NOT USED
Overlap "3"..*
Overlap "4"..NOT USED

*See overlap programming detail on sheet 3

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	OL1	OL2	SPARE	OL3	OL4	SPARE
SIGNAL HEAD NO.	NU	21	22	NU	NU	NU	NU	51	61	62	NU	NU	81,82	NU	NU	NU	NU	51★	NU	NU
RED		128	128						134	134			107							
YELLOW		129	129					*	135	135			108							
GREEN		130								136			109							
RED ARROW																		A114		
YELLOW ARROW																		A115		
FLASHING YELLOW ARROW																		A116		
GREEN ARROW			130					133	136											

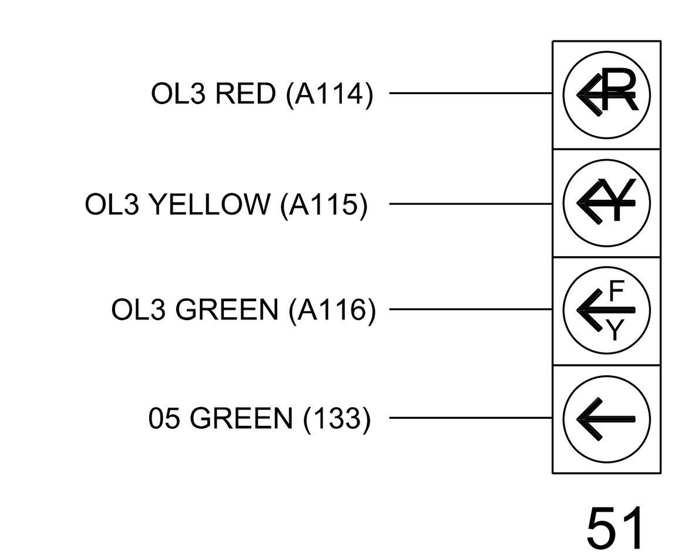
NU = Not Used

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

★See pictorial of head wiring in detail this sheet.

FYA SIGNAL WIRING DETAIL

(wire signal head as shown)



INPUT FILE POSITION LAYOUT

(front view)

		1	2	3	4	5	6	7	8	9	1O	11	12	13	14
FILE "I"	U	SLOT EMPTY	Ø2 2A DC ISOLATOR	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SYS. DET. S5	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	FS DC ISOLATOR
	L		NOT USED							SYS. DET. S6					ST DC ISOLATOR
FILE "J"	U	Ø5 5A	Ø6 6A	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	Ø8 8A	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY
	L	NOT USED	Ø6 6B				NOT USED								

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

FS = FLASH SENSE
ST = STOP TIME

Note: Install a model 242 DC Isolator in slot I2 for use with microwave detector. See the Microwave Detector Wiring Details on sheet 2.

! IMPORTANT: For proper operation of the microwave detector, remove surge protection from TB2-5 and TB2-6, and from TB2-7 and TB2-8.

! IMPORTANT: If TB2-6 is tied to AC NEUTRAL, remove jumper, DO NOT connect TB2-6 to AC NEUTRAL.

INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	QUEUE	CALL	PASSAGE 2
2A	**	I2U	39	1	2	**			X	X		X	
*S5	TB6-9,10	I9U	60	22	13	SYS							
*S6	TB6-11,12	I9L	62	24	14	SYS							
5A	TB3-1,2	J1U	55	17	15	5	15		X			X	
				-	31	2			X			X	X
6A	TB3-5,6	J2U	40	2	16	6			X	X		X	
6B	TB3-7,8	J2L	44	6	17	6			X	X		X	
8A	TB5-9,10	J6U	42	4	22	8			X			X	

**Microwave Pulse Detector (See Wiring Detail Sheet 2).

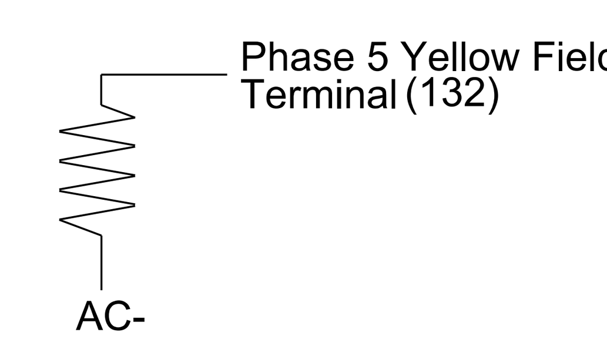
*System detector only. Remove any assigned vehicle phase.

INPUT FILE POSITION LEGEND: J2L
FILE J
SLOT 2
LOWER

LOAD RESISTOR INSTALLATION DETAIL

(install resistor as shown)

ACCEPTABLE VALUES	
Value (ohms)	Wattage
1.5K - 1.9K	25W (min)
2.0K - 3.0K	10W (min)



THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 07-1675
DESIGNED: Jan 2023
SEALED: 3/10/2023
REVISED:

AECOM
NC Firm License No.: F-0342
5438 Wade Park Boulevard
Suite 200, Raleigh, NC 27607
Phone: 919-461-1100

Final Design
Electrical Detail - Sheet 1 of 4

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Electrical and Programming Details For:

Prepared for the Offices of:
Transportation Mobility and Safety Division
ITS & Signals Management Section
750 N. Greenfield Pkwy, Garner, NC 27529

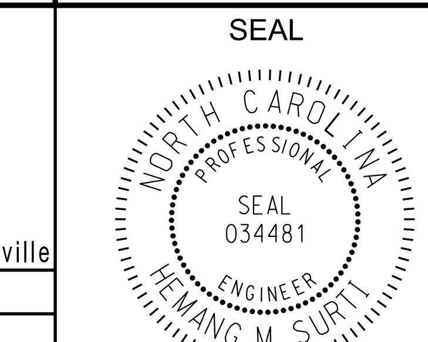
SR 2817 (Barnes Street)
at
US 29 NB Ramps

Division 7 | Rockingham County | Reidsville

PLAN DATE: January 2023	REVIEWED BY: H M Surti
PREPARED BY: A Ravipati	REVIEWED BY:

REVISIONS	INIT.	DATE

SEAL



DocuSigned by:
Hemang M. Surti 3/10/2023
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SIG. INVENTORY NO. 07-1675