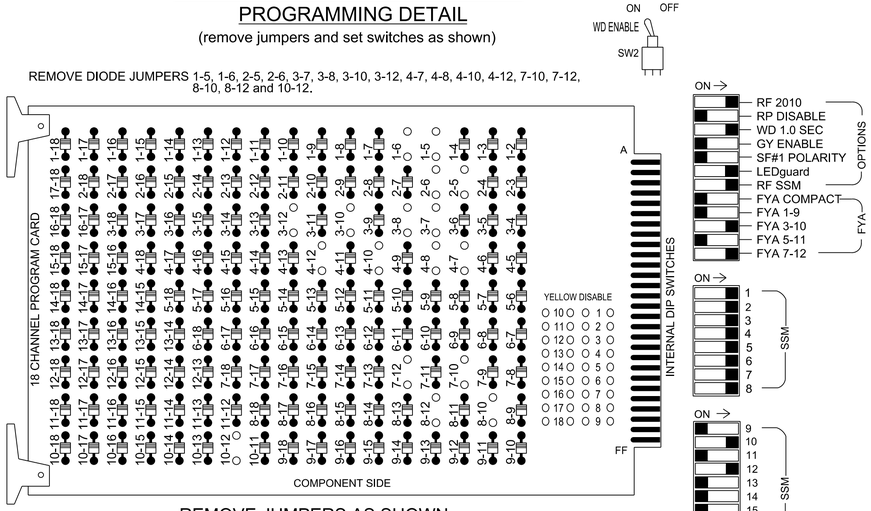
PROJECT REFERENCE NO.	SHEET NO.
R-2577A	Sig. 32.1

18 CHANNEL IP CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

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



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 phases 4 and 8 for Dual Entry.
4. Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.
5. If this signal will be managed by an ATMS software, enable controller and detector logging for all detectors used at this location.

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.....S1, S2, S4, S5, S7, S8, S10, S11, AUX S2, AUX S5
Phases Used.....1, 2, 3, 4, 5, 6, 7, 8
Overlap "1"..... NOT USED
Overlap "2".....*
Overlap "3"..... NOT USED
Overlap "4".....*

*See overlap programming detail on sheet 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	OL1	OL2	SPARE	OL3	OL4	SPARE
SIGNAL HEAD NO.	11	82	21,22	NU	22	31★	41,42, 43	NU	51	61,62	NU	62	71★	81,82	NU	NU	31★	NU	NU	71★	NU
RED	·	·	128	·	*	·	101	·	·	134	·	*	·	107	·	·	·	·	·	·	·
YELLOW	·	·	129	·	·	·	102	·	·	135	·	·	·	108	·	·	·	·	·	·	·
GREEN	·	·	130	·	·	·	103	·	·	136	·	·	·	109	·	·	·	·	·	·	·
RED ARROW	125	·	·	·	·	·	·	·	131	·	·	·	·	·	·	·	A124	·	·	A101	·
YELLOW ARROW	126	126	·	·	117	·	·	·	132	·	·	123	·	·	·	·	A125	·	·	A102	·
FLASHING YELLOW ARROW	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	A126	·	·	A103	·
GREEN ARROW	127	127	·	·	118	118	·	·	133	·	·	124	124	·	·	·	·	·	·	·	·

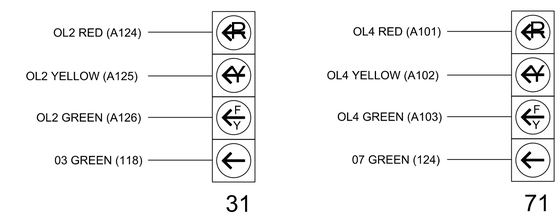
NU = Not Used

* 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 heads 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	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	Ø 3 3A	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	FS DC ISOLATOR
	L					NOT USED									ST DC ISOLATOR
FILE "J"	U	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	Ø 7 7A	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY
	L					NOT USED									

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

FS = FLASH SENSE
ST = STOP TIME

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	CALL	DELAY DURING GREEN
3A	TB4-5,6	I5U	58	20	7 ★	3	15		X		X	
				-	30 ★	8	3		X		X	
7A	TB5-5,6	J5U	57	19	21 ★	7	15		X		X	
				-	32 ★	4	3		X		X	

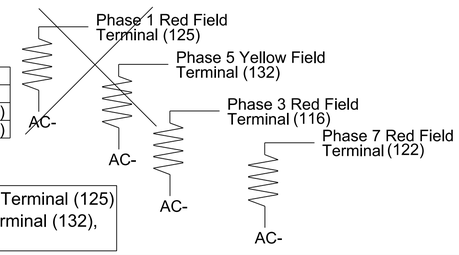
★ For the detector to work as shown on the signal design plan, see the vehicle detector setup programming detail for alternate phasing on sheet 2.

INPUT FILE POSITION LEGEND: J2L
FILE J
SLOT 2
LOWER

LOAD RESISTOR INSTALLATION DETAIL

(install resistors as shown)

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



!Remove Phase 1 Red Field Terminal (125) and Phase 5 Yellow Field Terminal (132), if present.

SPECIAL DETECTOR NOTE

Install a video detection system for vehicle detection for zones. 1A, 1B, 1C, 2A, 3A, 4A, 5A, 6A, 7A and 8A. 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 detecton zones 3A and 7A, detector card placement and slots are typical for a NCDOT installation. Inputs associated with these slots are compatible with time of day instructions located on sheet 2 of this electrical detail.

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 09-0264T3
DESIGNED: February 2024
SEALED: February 12, 2024
REVISED:

Signal Upgrade - Temporary Design 3
(TMP Phase III) - Electrical Detail - Sheet 1 of 2

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

RK&K
P: (919) 878-9560
8601 Six Forks Road Suite 700 | Raleigh, North Carolina 27615-2965
NC License No. F-0112
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Electrical and Programming Details For:

Prepared for the Offices of:

Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Traffic Engineering & Signals Management Section

750 N. Greenfield Pkwy, Garner, NC 27529

US 158 (Reidsville Rd.)
at
NC 66 (Old Hollow Rd.)

Division 9	Forsyth County	Walkertown
PLAN DATE: February 2024	REVIEWED BY: DT Sears	
PREPARED BY: WP Erickson-Jones	REVIEWED BY:	

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 056142 ENGINEER W. PORTER JONES

DocuSigned by: Porter Jones
DOBE13E3A0E0A3B...
2/12/2024
DATE

SIG. INVENTORY NO. 09-0264T3

2/12/2024
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wpjones