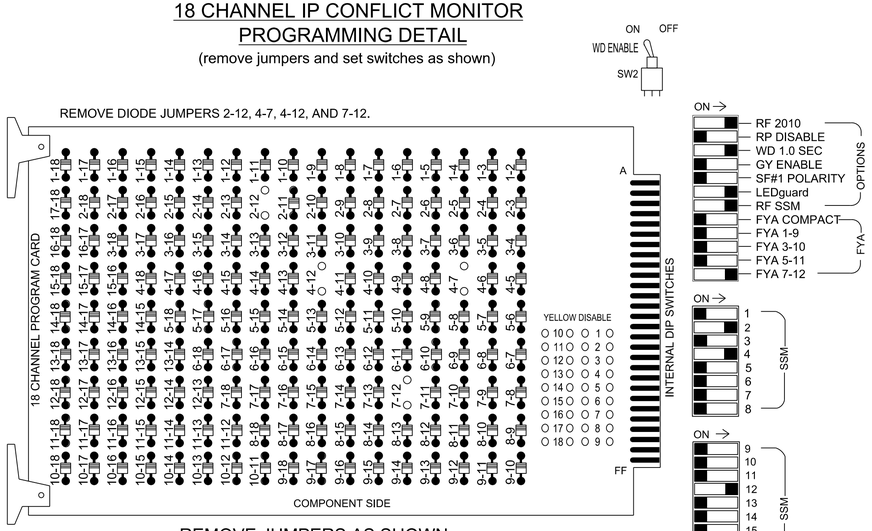
PROJECT REFERENCE NO.	SHEET NO.
R-5857	Sig. 5.1

18 CHANNEL IP CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)



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. Integrate monitor with Ethernet network in cabinet.

NOTES

1. To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.
2. Program phases 4 and 7 for Dual Entry.
3. Program controller to start up in phase 2 Green No Walk.
4. Program phases 2 for Advanced Warning.
5. Program phases 2 for 3.0 seconds Pre Clearance.
6. If this signal will be managed by an ATMS software, enable controller and detector logging for all detectors used at this location.
7. The cabinet and controller are part of the D03-38_Shallotte Signal System.

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	ADVANCE BEACON	3	4	4 PED	5	6	6 PED	ADVANCE BEACON	7	8	8 PED	OL1	OL2	OL5	OL3	OL4	OL6
SIGNAL HEAD NO.	NU	21,22	NU	23,25	NU	41,42	NU	NU	NU	NU	24,26	★★ 71,72	NU	NU	NU	NU	NU	NU	★★ 71,72	NU
RED		128				101														
YELLOW		129										*								
GREEN		130																		
RED ARROW																			A101	
YELLOW ARROW						102													A102	
FLASHING YELLOW ARROW																			A103	
GREEN ARROW						103						124								
✋																				
PED YELLOW				** 114							** 120									
🚶			*							*										

NU = Not Used

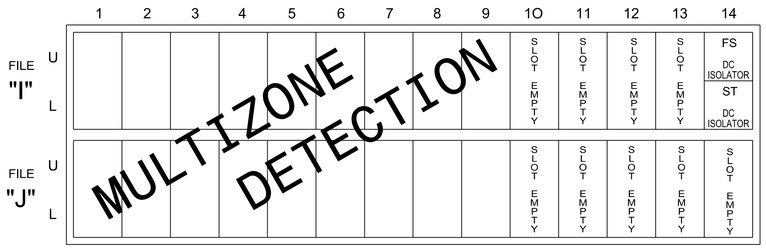
★ Denotes install load resistor. See load resistor installation detail this sheet.

★★ Outputs have been reassigned for Advanced Beacons. See Sheet 3 for reassignment programming and wiring details.

★ See pictorial of head wiring in detail on 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 the detection schemes shown on the Signal Design Plans.

Alternate Phasing Programming on Sheet 2 assumes default MAXTIME detector assignments and layouts, as shown in the Input File Chart below.

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
7A	TB5-5,6	J5U	57	19	21	7	15		X		X	

INPUT FILE POSITION LEGEND: J2L

FILE J
SLOT 2
LOWER

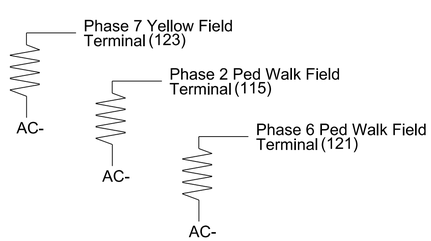
EQUIPMENT INFORMATION

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, S3**, S5, S9**, S10, AUX S5
Phases Used.....2, 4, 7
Overlap "1".....NOT USED
Overlap "2".....NOT USED
Overlap "3".....NOT USED
Overlap "4".....*
*See overlap programming detail on sheet 2
**Used for advance beacons only

LOAD RESISTOR INSTALLATION DETAIL

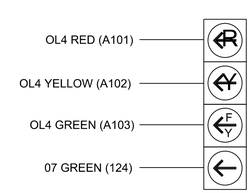
(install resistors as shown)

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



FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 03-1244
DESIGNED: March 2025
SEALED: 3-31-2025
REVISED: N/A

Electrical Detail - Sheet 1 of 3

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Electrical and Programming Details For:

Prepared in the Offices of:

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

750 N. Greenfield Pkwy, Garner, NC 27529

US 17 (Ocean Highway West)
at
US 17 Bus (Main Street)

Division 3 Brunswick County Shallotte

PLAN DATE:	March 2025	REVIEWED BY:	GG Murr, Jr.
PREPARED BY:	JT Rowe	REVIEWED BY:	

REVISIONS	INIT.	DATE

SEAL

Signed by: John T. Rowe, Jr. 4-1-2025
DEFEB32009E7407 DATE

SIG. INVENTORY NO. 03-1244

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4/1/2025
R5857_Sig5.1_24_sm_ele.2025xxyy.dgn
USER:default