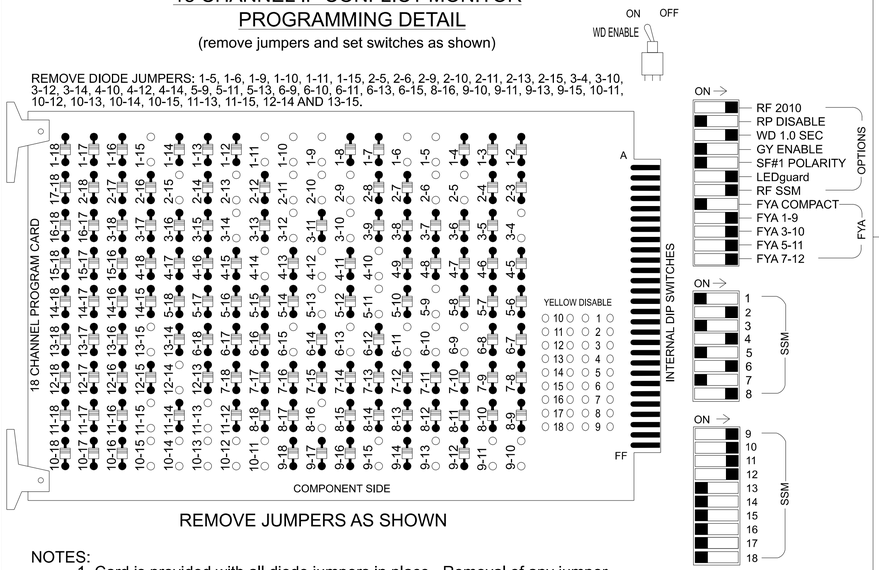
Docusign Envelope ID: 9AED1952-9CDF-4DE2-ABBC-764785A8BD82

18 CHANNEL IP CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS: 1-5, 1-6, 1-9, 1-10, 1-11, 1-15, 2-5, 2-6, 2-9, 2-10, 2-11, 2-13, 2-15, 3-4, 3-10, 3-12, 3-14, 4-10, 4-12, 4-14, 5-9, 5-11, 5-13, 6-9, 6-10, 6-11, 6-13, 6-15, 8-16, 9-10, 9-11, 9-13, 9-15, 10-11, 10-12, 10-13, 10-14, 10-15, 11-13, 11-15, 12-14 AND 13-15.



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.

INPUT FILE POSITION LAYOUT

(front view)

		1	2	3	4	5	6	7	8	9	1O	11	12	13	14
FILE "I"	U	∅ 1 1A	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT	∅ 2 PED DC ISOLATOR	∅ 6 PED DC ISOLATOR	FS DC ISOLATOR
	L	NOT USED	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	∅ 4 PED DC ISOLATOR	∅ 3 PED DC ISOLATOR	ST DC ISOLATOR
FILE "J"	U	∅ 5 5A	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT
	L	NOT USED	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY

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

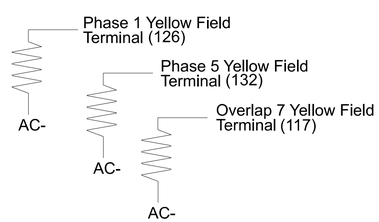
FS = FLASH SENSE
ST = STOP TIME

Note: For Detection Zones 1A and 5A the equipment and slots reserved are typical for a NCDOT installation.

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)



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 controller to start up in phase 2 Green No Walk and 6 Green No Walk.
3. If this signal will be managed by an ATMS software, enable controller and detector logging for all detectors used at this location.
4. The cabinet and controller are part of the Signal System #: NC 107 - D14-14.

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, S3, S4, S5, S6, S7, S8, S9, S11, S12, AUX S1, AUX S2, AUX S4, AUX S5
Phases Used.....1, 2, 2PED, 3, 3PED, 4, 4PED, 5, 6, 6PED
Overlap "1".....*
Overlap "2".....*
Overlap "3".....*
Overlap "4".....*
Overlap "5".....NOT USED
Overlap "6".....NOT USED
Overlap "7".....*

*See overlap programming detail on sheet 2.

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
1A	TB2-1,2	I1U	56	18	1★	1	15.0		X		X	
				-	29★	6	3.0		X		X	X
5A	TB3-1,2	J1U	55	17	15★	5	15.0		X		X	
				-	31★	2	3.0		X		X	X
PED PUSH BUTTONS												
P21,P22	TB8-4,6	I12U	67	33	2	PED 2						
P31,P32	TB8-8,9	I13L	70	36	8	PED 3						
P41,P42	TB8-5,6	I12L	69	35	4	PED 4						
P61,P62	TB8-7,9	I13U	68	34	6	PED 6						

NOTE: INSTALL DC ISOLATORS IN INPUT FILE SLOTS I12 AND I13.

★ For the detectors to work as shown on the signal design plan, see the Vehicle Detector Setup Programming Detail for Alternate Phasing on sheet 3.

INPUT FILE POSITION LEGEND: J2L
FILE J
SLOT 2
LOWER

SPECIAL DETECTOR NOTE

1. Install a multi-zone 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.
2. For detection zones 1A and 5A, equipment and slots reserved are typical for a NCDOT installation. Inputs associated with these slots are compatible with time of day instructions located on sheet 3 of this electrical detail.

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.

Plans Prepared By:

DRMP
DRMP, INC.
8210 UNIVERSITY EXECUTIVE PARK DR.
SUITE 220
CHARLOTTE, NC 28262
NC LICENSE NO. F-1524 (704) 549-4260

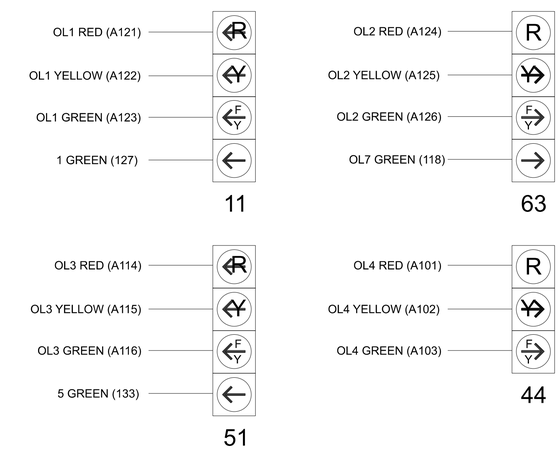
SIGNAL HEAD HOOK-UP CHART

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	OL7	4			4 PED	5	6	6 PED	7	3		3 PED	OL1	OL2	SPARE	OL3	OL4	SPARE
SIGNAL HEAD NO.	11★	21,22	P21, P22	63★	41	42	43	P41, P42	51★	61,62	P61, P62	NU	31	32,33	P31, P32	11★	63★	NU	51★	44★	NU
RED		128				101	101			134			107	107			A124			A101	
YELLOW	*	129		*		102	102		*	135			108	108							
GREEN		130				103	103			136			109	109							
RED ARROW					101											A121			A114		
YELLOW ARROW					102											A122	A125		A115	A102	
FLASHING YELLOW ARROW																A123	A126		A116	A103	
GREEN ARROW	127			118	103	103			133				109								
✋			113					104			119				110						
🚶			115					106			121				112						

NU = Not Used NC = Not Connected
★ 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)



THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 14-0411
DESIGNED: Aug 2025
SEALED: 8/26/2025
REVISED: N/A

Electrical Detail - Sheet 1 of 3
Final Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ELECTRICAL AND PROGRAMMING DETAILS FOR:

NC 107 (E Main Street) at SR 116 (Webster Road) / Alexander Street

Division 14 Jackson County Sylva

PLAN DATE:	August 2025	REVIEWED BY:	ZM Esposito
PREPARED BY:	DS Griffith	REVIEWED BY:	BN Groome

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 052936 ENGINEER BRITTANY N GROOME

Signed by: Brittany Groome 8/26/2025
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DATE

SIG. INVENTORY NO. 14-0411

750 N.Greenfield Pkwy,Garner,NC 27529

25-AUG-2025 11:18
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dgriffith AT CHA-DGRIFFITH