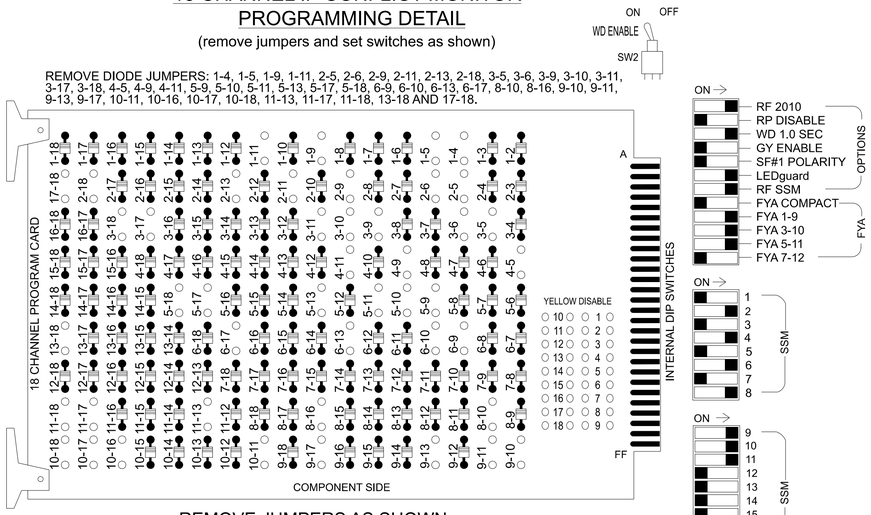
Docusign Envelope ID: EDBF09DE-B24D-4F89-928A-48F3924CA521

PROJECT REFERENCE NO.	SHEET NO.
R-5600	Sig-20.1

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 controller to start up in phase 2 Green No Walk and phase 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 NC 107 Time Based System.

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, S7, S8, S11, S12, AUXS1, AUXS2, AUXS3, AUXS4, AUXS6
Phases Used.....1, 2, 2PED, 3, 3PED, 4, 5, 6
Overlap "1".....*
Overlap "2".....*
Overlap "3".....*
Overlap "4".....NOT USED
Overlap "5".....NOT USED
Overlap "6".....NOT USED
Overlap "7".....*
Overlap "8".....*
Overlap "9".....*

*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	OL7	2	2 PED	OL8	4			4 PED	OL9	6	6 PED	7	3		3 PED	OL1	OL2	1	OL3	OL4	5
SIGNAL HEAD NO.	63★	21,22	P21 P22	33★	41	42	43	NC	44★	61,62	NU	NU	31	32	P31 P32	63★	33★	11	44★	NU	51
RED		128				101	101			134			107	107		A121	A124		A114		
YELLOW	*	129		*		102	102		*	135			108	108							
GREEN		130				103	103			136			109	109							
RED ARROW					101													A111			A104
YELLOW ARROW					102											A122	A125	A112	A115		A105
FLASHING YELLOW ARROW																A123	A126		A116		
GREEN ARROW	127			118	103	103			133				109					A113			A106
✋			113												110						
🚶			115												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.

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	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	∅ 2 PED DC ISOLATOR	NOT USED	FS DC ISOLATOR
	L												NOT USED	∅ 3 PED DC ISOLATOR	ST DC ISOLATOR
FILE "J"	U	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY
	L														

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

FS = FLASH SENSE
ST = STOP TIME

INPUT FILE CONNECTION & PROGRAMMING CHART

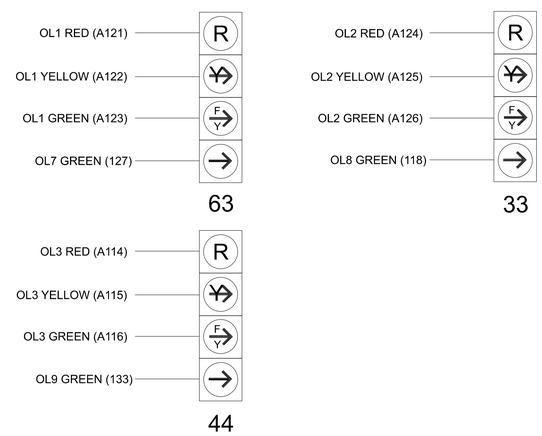
LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
PED PUSH BUTTONS												
P21,P22	TB8-4,6	I12U	67	33	2	PED 2						
P31,P32	TB8-8,9	I13L	70	36	8	PED 3						

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

INPUT FILE POSITION LEGEND: J2L
FILE J
SLOT 2
LOWER

FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)

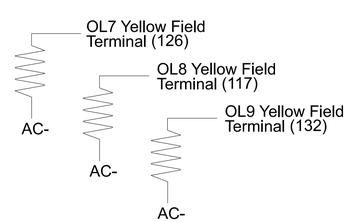


THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 14-1022T2
DESIGNED: Aug 2025
SEALED: 8/26/2025
REVISED: N/A

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)



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.

SPECIAL DETECTOR NOTE

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.

Plans Prepared By:

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

Electrical Detail - Sheet 1 of 2
Temporary Design 2 - TMP Ph1, S2, Part 2

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ELECTRICAL AND PROGRAMMING DETAILS FOR:

NC 107 (E. Main St)
at
Walmart Driveway /
Commerical Driveway

Division 14 Jackson County Sylva

PLAN DATE:	August 2025	REVIEWED BY:	ZM Espostio
PREPARED BY:	KA Jones	REVIEWED BY:	BN Groome

REVISIONS | INIT. | DATE

750 N.Greenfield Pkwy,Garner,NC 27529

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 052936 ENGINEER BRITTANY N GROOME

Signed by: Brittany Groome 1E0934DE1D94454... 8/26/2025
DATE

SIG. INVENTORY NO. I4-1022T2

21-AUG-2025 16:04
R:\Traffic\Signals\Documents\NCDOT\NCDOT_Western_Div_On-Call_MA\NCDOT_6170_R5600_NC170_US238BUS/6.0_CAD_BIM/6.2_Work_In_Progress/R-5600 NCDOT File Structure\Traffic\Signals\Design\Signal Management/14-1022/14102272_sm_ele_2025mmdd.dgn
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KIONES AT CHA-K-JONES