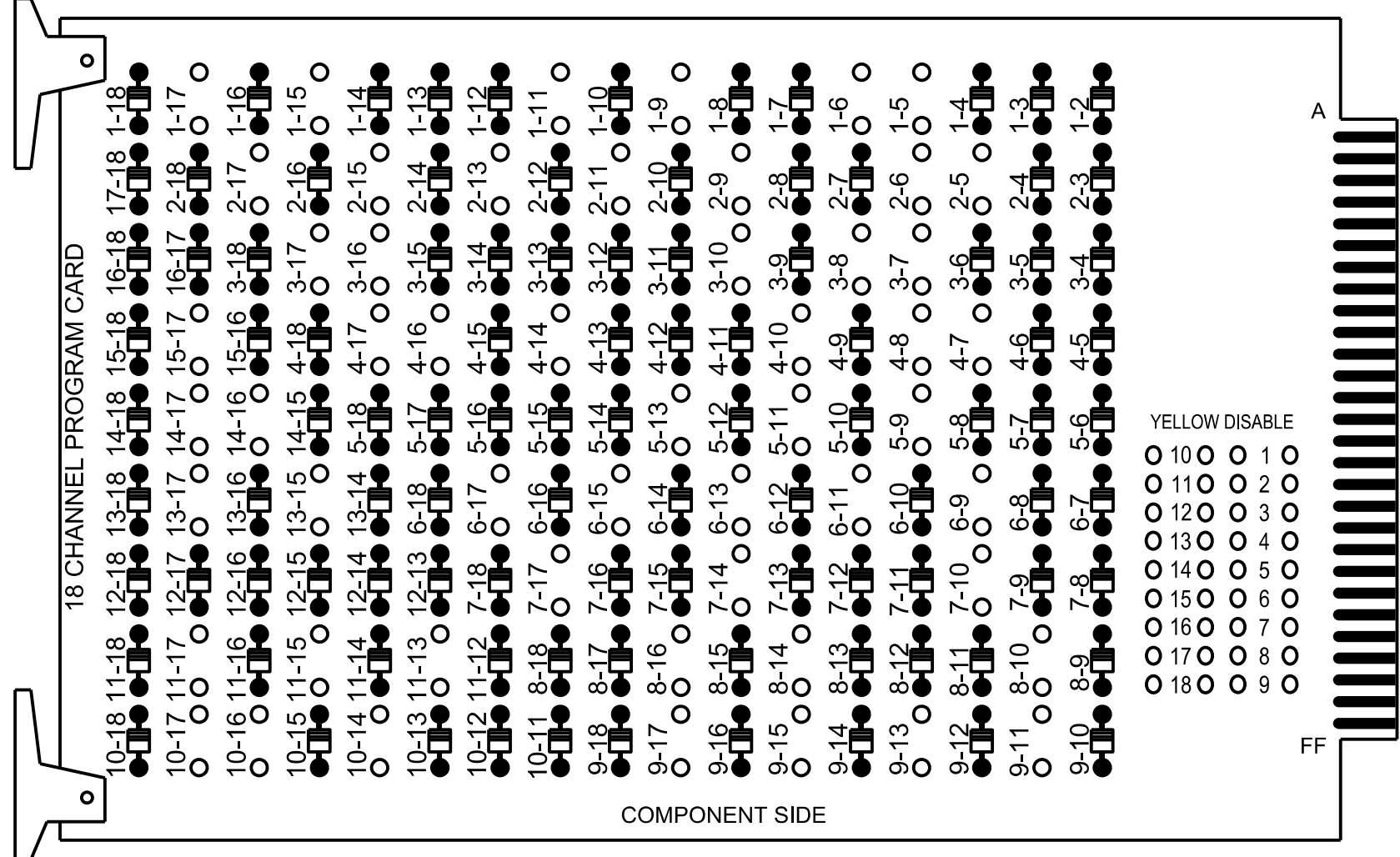


18 CHANNEL IP CONFLICT MONITOR

PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

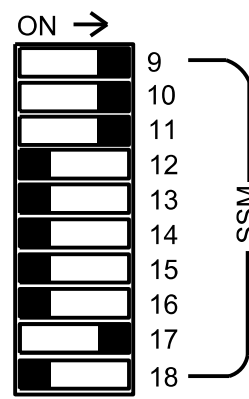
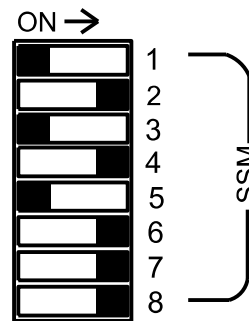
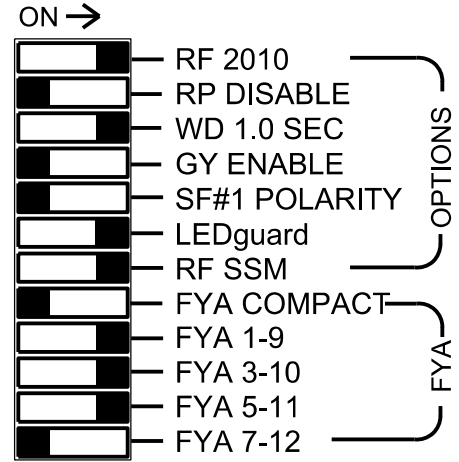
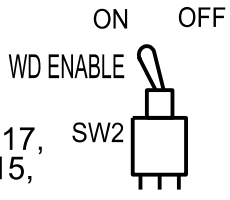
REMOVE DIODE JUMPERS 1-5, 1-6, 1-9, 1-11, 1-15, 1-17, 2-5, 2-6, 2-9, 2-11, 2-13, 2-15, 2-17, 3-7, 3-8, 3-10, 3-16, 3-17, 4-7, 4-8, 4-10, 4-14, 4-16, 4-17, 5-9, 5-11, 5-13, 6-9, 6-11, 6-13, 6-15, 6-17, 7-10, 7-14, 7-17, 8-10, 8-14, 8-16, 9-11, 9-13, 9-15, 9-17, 10-14, 10-16, 10-17, 11-13, 11-15, 11-17, 13-15, 13-17, 14-16, 14-17, and 15-17.



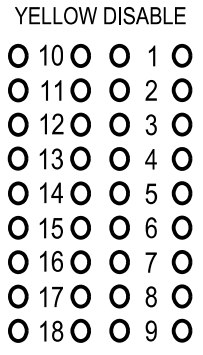
REMOVE JUMPERS AS SHOWN

NOTES:

- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
- Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
- Ensure that the Red Enable is active at all times during normal operation.
- Integrate monitor with Ethernet network in cabinet.



■ = DENOTES POSITION OF SWITCH



INTERNAL DIP SWITCHES

NOTES

- 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.
- Return controller to Factory Defaults before programming per this electrical detail.
- Program phases 4 and 8 for Dual Entry.
- Program controller to start up in phase 2 Green Walk and 6 Green Walk.
- If this signal will be managed by an ATMS software, enable controller and detector logging for all detectors used at this location.
- The cabinet and controller are part of the West Catawba Avenue CLS, D10-18 Cornelius.

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, S10, S11, S12, AUX S1, AUX S2, AUX S3, AUX S4
Phases Used.....1, 2, 2PED, 3, 4, 4PED, 5, 6, 6PED, 7, 8, 8PED
Overlap "1".....*
Overlap "2".....*
Overlap "3".....*
Overlap "4".....NOT USED
Overlap "5".....*

*See overlap programming detail on sheet 2

PROJECT REFERENCE NO.	SHEET NO.
U-5906	Sig. 3.1

SIGNAL HEAD HOOK-UP CHART

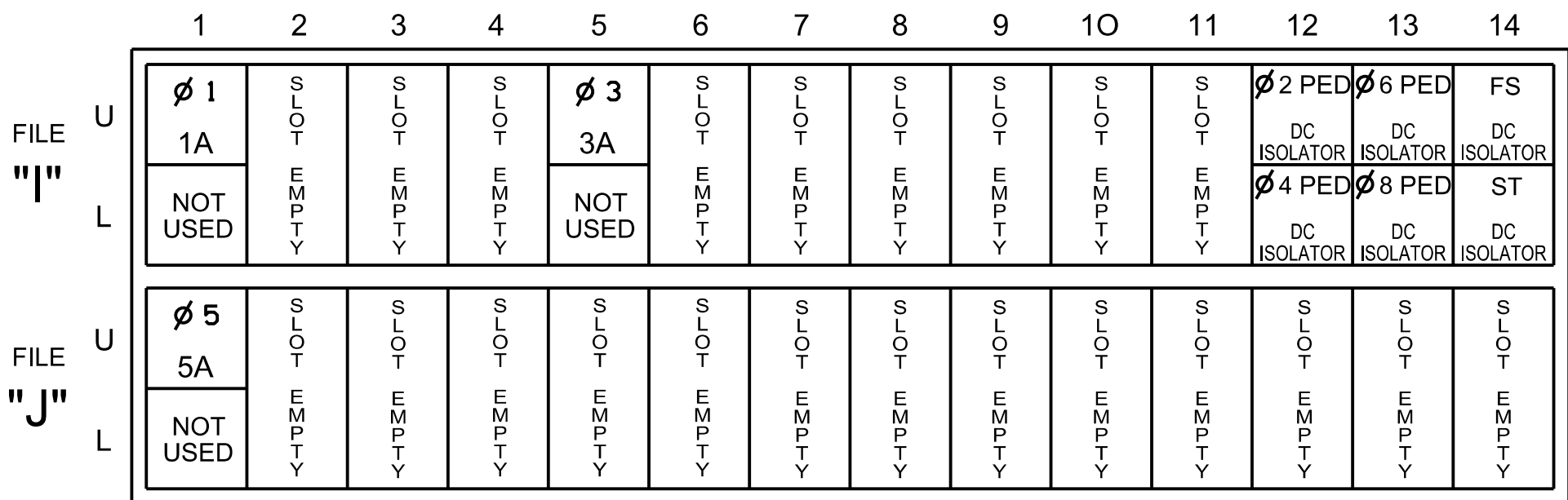
LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	15	7	8	16	9	10	17	11	12	18
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED	OL1	OL2	OL5	OL3	OL4	SPARE
SIGNAL HEAD NO.	11	21,22	P21, P22	31	41,42	P41, P42	51	61,62	P61, P62	71,72	81,82	P81, P82	11	31	63	51	NU	NU
RED		128			101			134			107				A111			
YELLOW	*	129		*	102		*	135			108							
GREEN		130			103			136			109							
RED ARROW										122			A121	A124		A114		
YELLOW ARROW										123			A122	A125	A112	A115		
FLASHING YELLOW ARROW													A123	A126	A113	A116		
GREEN ARROW	127			118			133			124								
Hand icon			113		104			119			110							
Walking person icon			115		106			121			112							

NU = Not Used

- * 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)



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

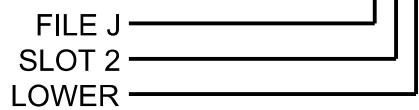
FS = FLASH SENSE
ST = STOP TIME

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
1A	TB2-1,2	I1U	56	18	1	1	15,0	---	X	-	X	-
				-	29	6	-	---	X	-	X	-
3A	TB4-5,6	I5U	58	20	7	3	15,0	---	X	-	X	-
				-	30	8	-	---	X	-	X	-
5A	TB3-1,2	J1U	55	17	15	5	15,0	---	X	-	X	-
				-	31	2	-	---	X	-	X	-
PED PUSH BUTTONS												
P21,P22	TB8-4,6	I12U	67	33	2	PED 2						
P41,P42	TB8-5,6	I12L	69	35	4	PED 4						
P61,P62	TB8-7,9	I13U	68	34	6	PED 6						
P81,P82	TB8-8,9	I13L	70	36	8	PED 8						

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

INPUT FILE POSITION LEGEND: J2L



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.

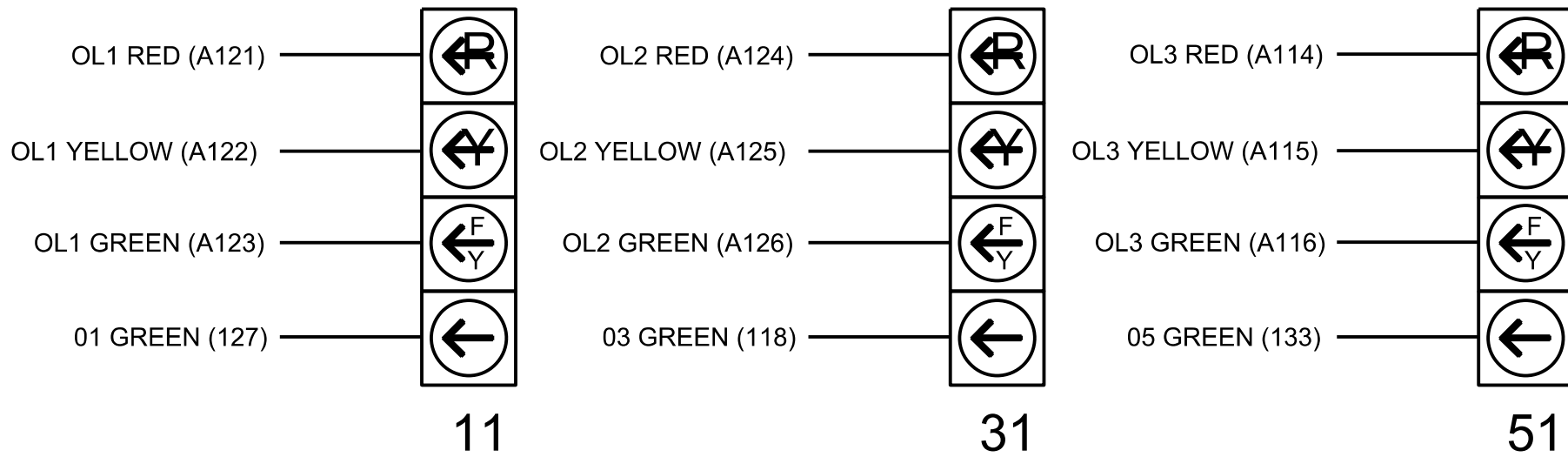
SPECIAL DETECTOR NOTE

Install a 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.

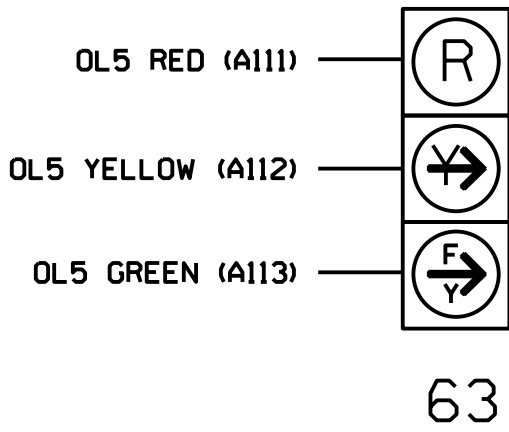
For Detection Zones 1A, 3A, and 5A, the equipment placement is typical for a NCDOT installation.

FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)

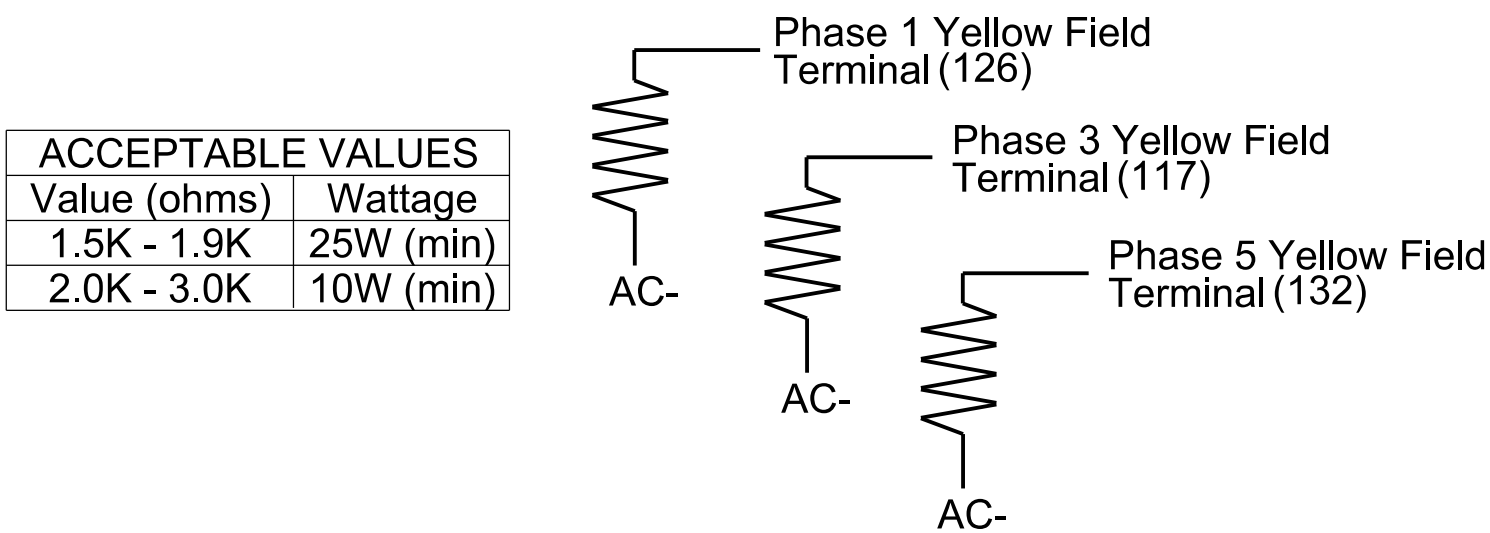


THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 10-1828
DESIGNED: July 2025
SEALED: 7/30/2025
REVISED: N/A



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)

Signal Upgrade - Final
Electrical Detail Sheet 1 of 2

ELECTRICAL AND PROGRAMMING DETAILS FOR: Prepared for the Offices of: Transportation Mobility and Safety Division U.S. DEPARTMENT OF TRANSPORTATION Signal Management Section 750 N. Greenfield Pkwy, Garner, NC 27529		SR 5544 (West Catawba Avenue) at One Norman Way Division 10 Mecklenburg County Cornelius PLAN DATE: July 2025 REVIEWED BY: O. Drobny PREPARED BY: S.G. Haynie REVIEWED BY: REVISIONS INIT. DATE		SEAL NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029531 Steven G. Haynie 7/30/2025 SIGNATURE DATE SIG. INVENTORY NO. 10-1828	
--	--	--	--	--	--