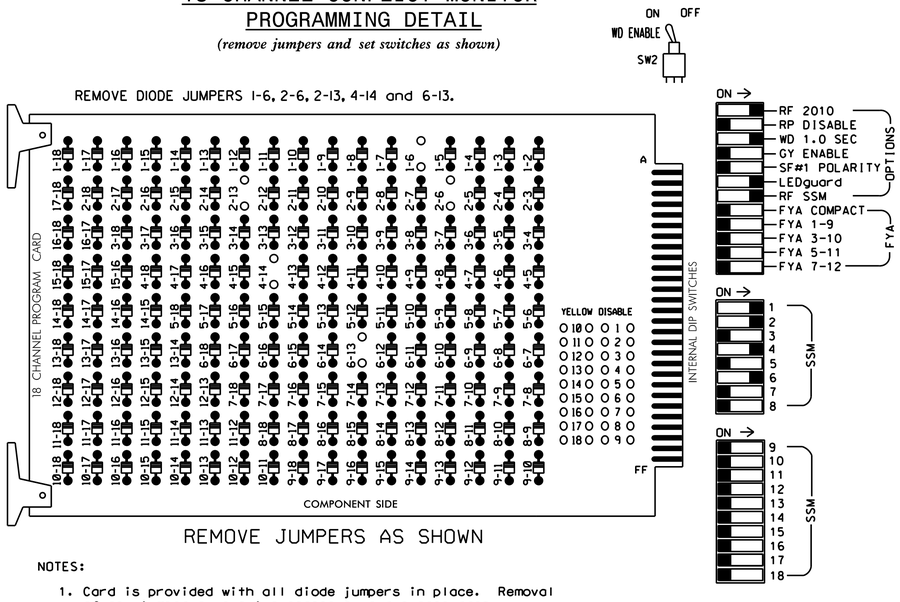
Docusign Envelope ID: EFF8A1FE-DDBC-4645-B7E4-7BBB1FE0CB7F

PROJECT REFERENCE NO.	SHEET NO.
U-5777	Sig. 3.1

18 CHANNEL CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)



■ = DENOTES POSITION OF SWITCH

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 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 Plans.
2. Program controller to start up in phases 2 and 6 Green/Don't Walk.
3. Enable Simultaneous Gap-Out feature for all phases.
4. The cabinet and controller are part of the Hickory City Signal System.

EQUIPMENT INFORMATION

CONTROLLER.....2070LX
CABINET.....332 W/ AUX
SOFTWARE.....SE-PAC2070 VER. 5.4
CABINET MOUNT.....BASE
OUTPUT FILE POSITIONS...18 WITH AUX. OUTPUT FILE
LOAD SWITCHES USED.....S1,S2,S3,S5,S6,S8
PHASES USED.....1,2,2 PED,4,4 PED,6,*6 PED
OVERLAP "A".....NOT USED
OVERLAP "B".....NOT USED
OVERLAP "C".....NOT USED
OVERLAP "D".....NOT USED

* Phase used for timing purposes only.

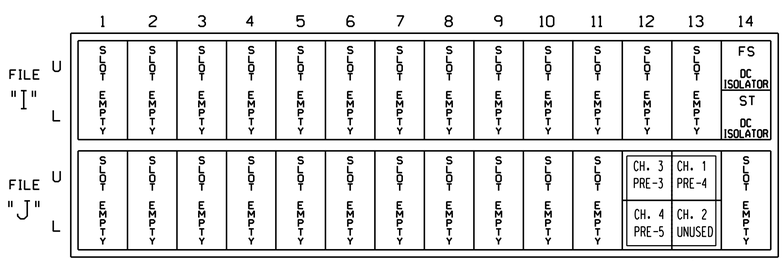
SIGNAL HEAD HOOK-UP CHART

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	OLA	OLB	SPARE	OLC	OLD	SPARE
SIGNAL HEAD NO.	61	21	22	P21, P22	NU	41,42	P41, P42	NU	61	62	NC	NU	NU	NU	NU	NU	NU	NU	NU	NU
RED	*	128	128			101			134	134										
YELLOW		129	129			102			135	135										
GREEN			130			103			136											
RED ARROW																				
YELLOW ARROW	126																			
FLASHING YELLOW ARROW																				
GREEN ARROW	127	130								136										
✋				113			104													
🚶				115			106													

NU = Not Used
NC = Not Connected
* Denotes install load resistor. See load resistor installation detail this sheet.

INPUT FILE POSITION LAYOUT

(front view)



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

FS = FLASH SENSE
ST = STOP TIME
PRE = PREEMPT

4 CHANNEL EV OSP CARD INSERT CARD INTO SLOT J13

INIT & N.A. RESP PROGRAMMING DETAIL

(program controller as shown below)

From the Main Menu, Press '3' (Phase Data)

```
PHASE MENU

 1-VEHICLE DATA          6-SPEC. SEQUENCE+
 2-DENSITY TIMES+        7-DETECTOR DATA
 3-PEDESTRIAN DATA       8-PHASE & BANK COPY
 4-INIT & NA RESP+       9-SELECT PHASE BANK
 5-N.LOCK & MISC+
'+' DENOTES BANKABLE DATA                [1]
```

```
 PHASE....1...2...3...4...5...6...7...8
 INITIAL   1   6   0   1   0   6   0   0
 NA RESP   2   1   0   2   0   1   0   0

CODES.....0....1...2....3...4...5...6
 INITL  NONE INACT RED  YEL GRN DRK G/DW
 NA RSP NONE  NA1  NA2  1&2 --- --- ---
                                   * * *
```

PHASES 3,5,7,8 NOT USED! →

← CODE 6 (G/DW) ALLOWS PHASES 2 AND 6 TO START IN GREEN AND SKIP THE PED PHASE

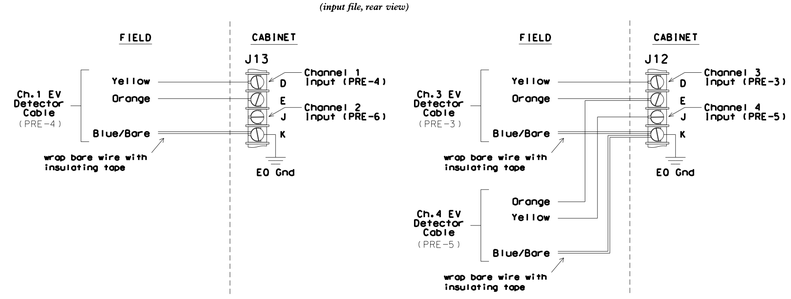
INIT & N.A. RESP PROGRAMMING COMPLETE

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.

TYPICAL EV FIELD WIRE DETAIL

(input file, rear view)

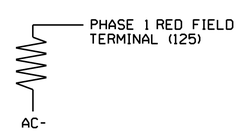


LOAD RESISTOR INSTALLATION DETAIL

(install resistor as shown below)

ACCEPTABLE VALUES

VALUE (ohms)	WATTAGE
1.5K - 1.9K	25W (min)
2.0K - 3.0K	10W (min)



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(919) 546-8997

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 12-0945T2
DESIGNED: October 2023
SEALED: 09/06/2024
REVISED: N/A

Signal Upgrade-
Electrical Detail - Sheet 1 of 3
(Construction Phase 1, Step 4)

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ELECTRICAL AND PROGRAMMING DETAILS FOR:

Prepared for:
NC Department of Transportation Mobility and Safety Division
Traffic Engineering & Signals Management Section
750 N.Greenfield Pkwy,Garner,NC 27529

NC 127 SE
at
SR 2231 (2nd Ave SE)

Division 12 Catawba County Hickory

PLAN DATE:	January 2024	REVIEWED BY:	N.K. Vlanich
PREPARED BY:	E.E. Tiller	REVIEWED BY:	N.R. Simmons

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 031464 ENGINEER NATASHA R. SIMMONS

DocuSigned by: Natasha R. Simmons 9/6/2024
SIGNATURE DATE

SIG. INVENTORY NO. 12-0945T2

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