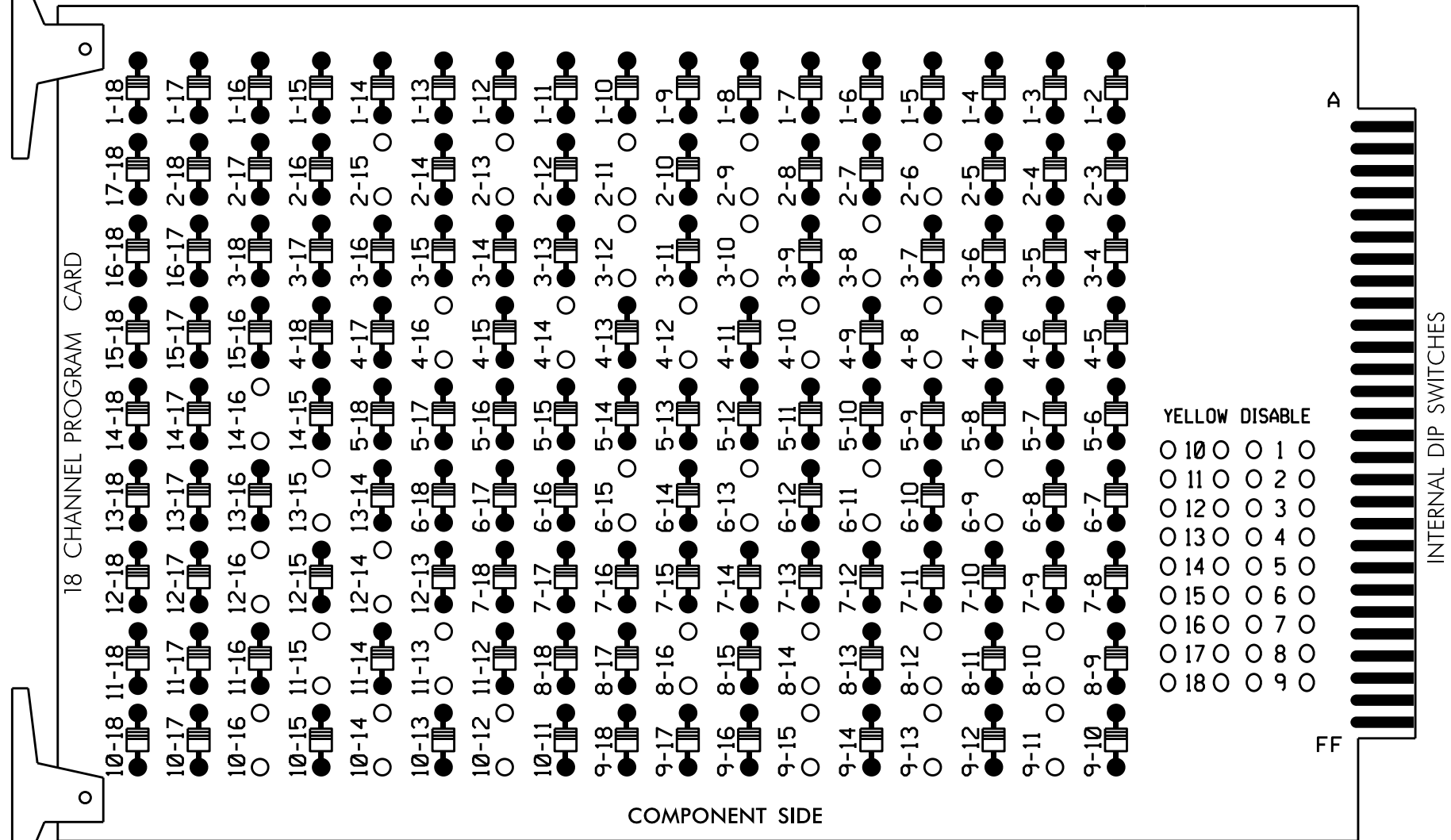


### 18 CHANNEL IP CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS 2-6, 2-9, 2-11, 2-13, 2-15, 3-8, 3-10, 3-12, 4-8, 4-10, 4-12, 4-14, 4-16, 6-9, 6-11, 6-13, 6-15, 8-10, 8-12, 8-14, 8-16, 9-11, 9-13, 9-15, 10-12, 10-14, 10-16, 11-13, 11-15, 12-14, 12-16, 13-15, and 14-16.



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 Red Enable is active at all times during normal operation.
  - Ensure Conflict Monitor Ethernet port is connected to a Switch port located within the cabinet.

■ = DENOTES POSITION OF SWITCH

### INPUT FILE POSITION LAYOUT

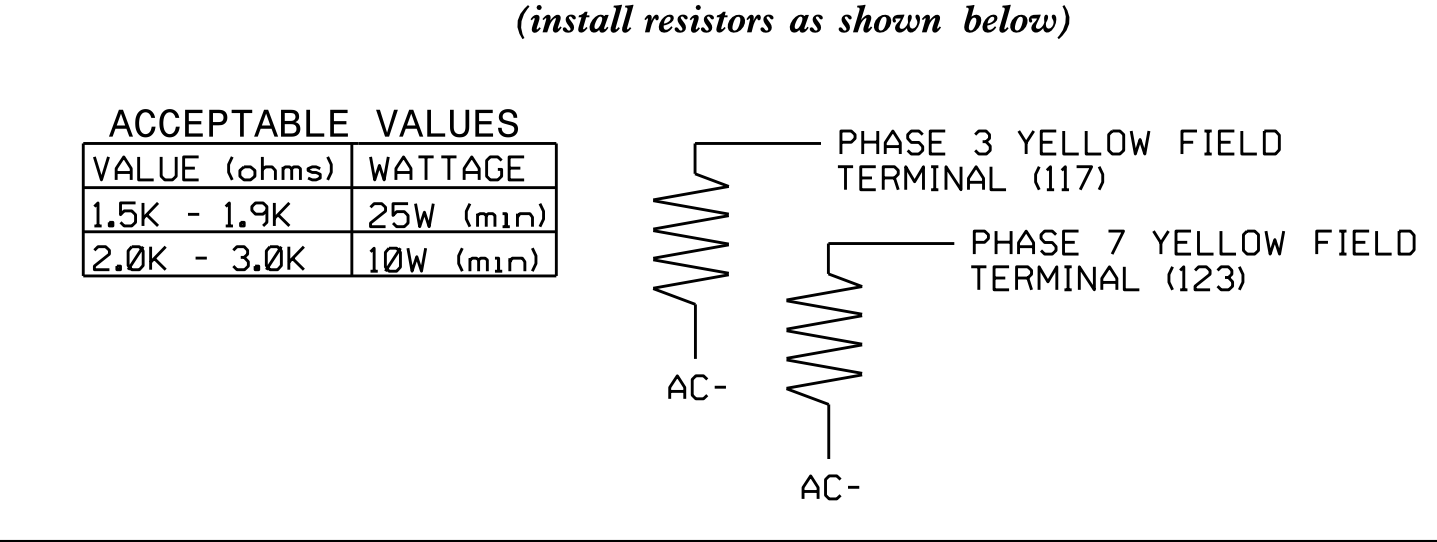
(front view)

FILE U	1	2	3	4	5	6	7	8	9	10	11	12	13	14
FILE U	2A	2C	NOT USED	4A	4B	4C	4D	4E	4F	4G	4H	4I	4J	4K
FILE U	6A	6C	NOT USED	8A	8B	8C	8D	8E	8F	8G	8H	8I	8J	8K
FILE U	6B	NOT USED	8B	8C	8D	8E	8F	8G	8H	8I	8J	8K	8L	8M

EX.: 1A, 2A, ETC. = LOOP NO.'S FS = FLASH SENSE ST = STOP TIME

NOTE: Loop 4A will call phase 7 during Preemption only by way of special logic programming. See sheet 5 for programming details.

### LOAD RESISTOR INSTALLATION DETAIL



- ### NOTES
- 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.
  - Initialize database in Naztec 2070 local software (Apogee) as FULL-CALTRANS. This initialization should be done prior to programming controller.
  - Initialize I/O "C1-C11-ABC IO Mode" to USER (MM 1-8-6). Then set "Init 2A" to MODE 5 (MM 1-8-9-3).
  - Program phases 2 and 6 for Start Up In Green.
  - Program "Start Up Flash" for 0 sec. The conflict monitor will govern start-up flash time.
  - Ensure "Local Flash Start" feature is set to "DRK".
  - Ensure "InhFYARedSt" feature is set to "ON".
  - Program controller to provide a 1 second delay on the Flash Sense/Local Flash input. Use the following logic statement to provide this functionality:  

```
FROM MAIN MENU->1->8->7 (I/O LOGIC) Result Src.Fcn TimeOp Time
1208 = 01208 DLY 1
```
  - Program phases 4 and 8 for Dual Entry.
  - The cabinet and controller are part of the Greensboro Signal System.

### EQUIPMENT INFORMATION

CONTROLLER.....2070  
 CABINET.....332 W/ AUX  
 SOFTWARE.....TRAFFICWARE APOGEE  
 CABINET MOUNT.....BASE  
 OUTPUT FILE POSITIONS...18 WITH AUX. OUTPUT FILE  
 LOAD SWITCHES USED.....S2,S3,S4,S5,S6,S8,S9,S10,S11,  
 S12,AUX S1,AUX S1,AUX S4,AUX S5  
 PHASES USED.....2,2PED,3\*,4,4PED,6,6PED,7\*,8,8PED  
 OVERLAP A.....\*\*  
 OVERLAP B.....\*\*  
 OVERLAP C.....\*\*  
 OVERLAP D.....\*\*

\* Phase used during Preemption only.  
 \*\* See Overlap Programming Detail Sheet 2.

### INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	DETECTOR NO.	CALL PHASE	SWITCH	DELAY TIME	EXTEND TIME	CALL	EXTEND	ADDED INIT.
2A	TB2-5,6	I2U	39	2	2				X	X	X
2B	TB2-7,8	I2L	43	3	2				X	X	X
2C	TB2-9,10	I3U	63	4	2				X	X	
4A	TB4-9,10	I6U	41	8	4/7		3		X	X	
4B	TB4-11,12	I6L	45	9	4		10		X	X	
6A	TB3-5,6	J2U	40	16	6				X	X	X
6B	TB3-7,8	J2L	44	17	6				X	X	X
6C	TB3-9,10	J3U	64	18	6				X	X	
8A	TB5-9,10	J6U	42	22	8				X	X	
8B	TB5-11,12	J6L	46	23	8		10		X	X	

NOTE: INSTALL DC ISOLATORS IN INPUT FILE SLOTS 112 AND 113.

### COUNTDOWN PEDESTRIAN SIGNAL OPERATION

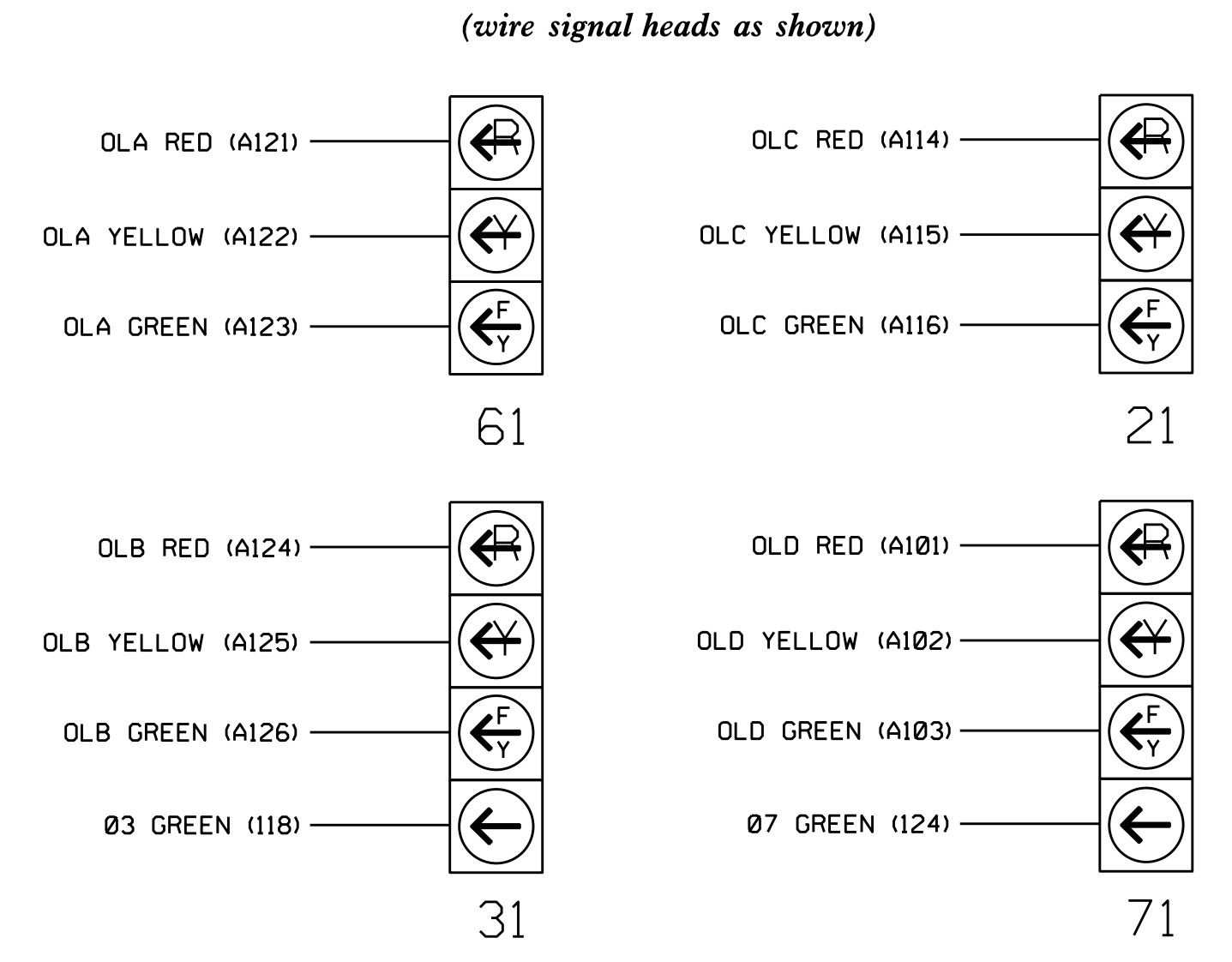
Countdown Ped Signals are required to display timing only during Ped Clearance Interval. Consult Ped Signal Module user's manual for instructions on selecting this feature.

### 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.	NU	22,23	P21, P22	31	41,42	P41, P42	NU	62,63	P61, P62	71	81,82	P81, P82	61	31	NU	21	71	NU
RED		128			101			134			107							
YELLOW		129		*	102			135		*	108							
GREEN		130			103			136			109							
RED ARROW													A121	A124		A114	A101	
YELLOW ARROW													A122	A125		A115	A102	
FLASHING YELLOW ARROW													A123	A126		A116	A103	
GREEN ARROW							118				124							
Hand																		
Foot																		

NU = Not Used  
 \* Denotes install load resistor. See load resistor installation detail this sheet.  
 ★ See pictorial of head wiring in detail below.

### FYA PPLT SIGNAL WIRING DETAIL



THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 07-0424  
 DESIGNED: November 2023  
 SEALED: 1/17/2024  
 REVISED: N/A

Electrical Detail - Sheet 1 of 5

Electrical and Programming Details for: SR 3163 (E. Market Street) at Sykes Ave. & Lowdermilk Street

Prepared in the Offices of: GULF TRANSPORTATION MOBILITY AND SAFETY DIVISION, NORTH CAROLINA DEPARTMENT OF TRANSPORTATION, Signal Management Section

750 N. Greenfield Pkwy, Garner, NC 27529

Division 7 Guilford County Greensboro

PLAN DATE: January 2024 REVIEWED BY: Ryan W. Hough

PREPARED BY: James Peterson REVIEWED BY: Ryan W. Hough

REVISIONS: \_\_\_\_\_ INIT: \_\_\_\_\_ DATE: \_\_\_\_\_

Seal: Ryan W. Hough, Professional Engineer, No. 036833, State of North Carolina, dated 01/19/2024.

SIG. INVENTORY NO. 07-0424

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