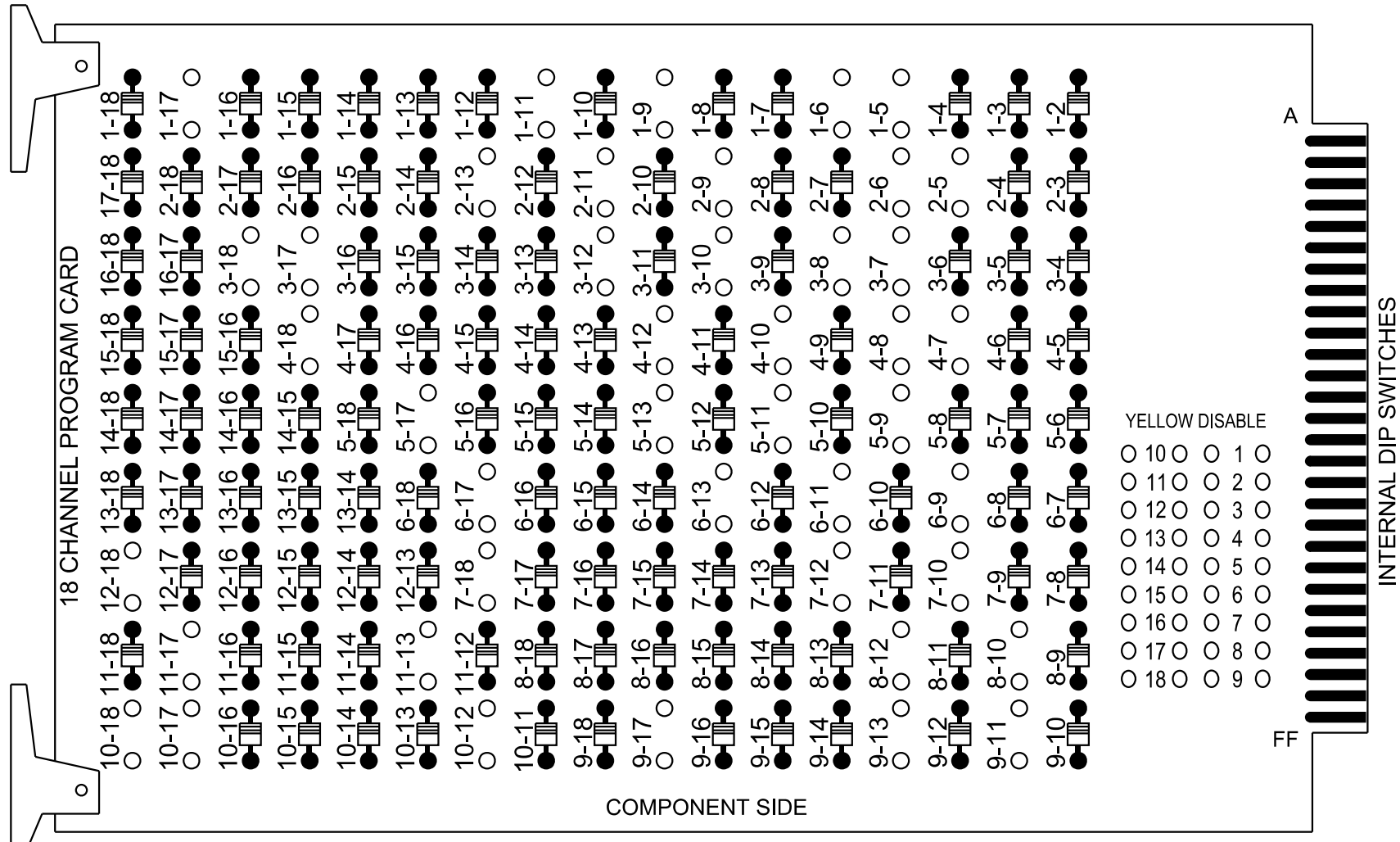


18 CHANNEL IP CONFLICT MONITOR

PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS 1-5, 1-6, 1-9, 1-11, 1-17, 2-5, 2-6, 2-9, 2-11, 2-13, 3-7, 3-8, 3-10, 3-12, 3-17, 3-18, 4-7, 4-8, 4-10, 4-12, 4-18, 5-9, 5-11, 5-13, 5-17, 6-9, 6-11, 6-13, 6-17, 7-10, 7-12, 7-18, 8-10, 8-12, 9-11, 9-13, 9-17, 10-12, 10-17, 10-18, 11-13, 11-17, and 12-18.



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.

INPUT FILE POSITION LAYOUT

(front view)

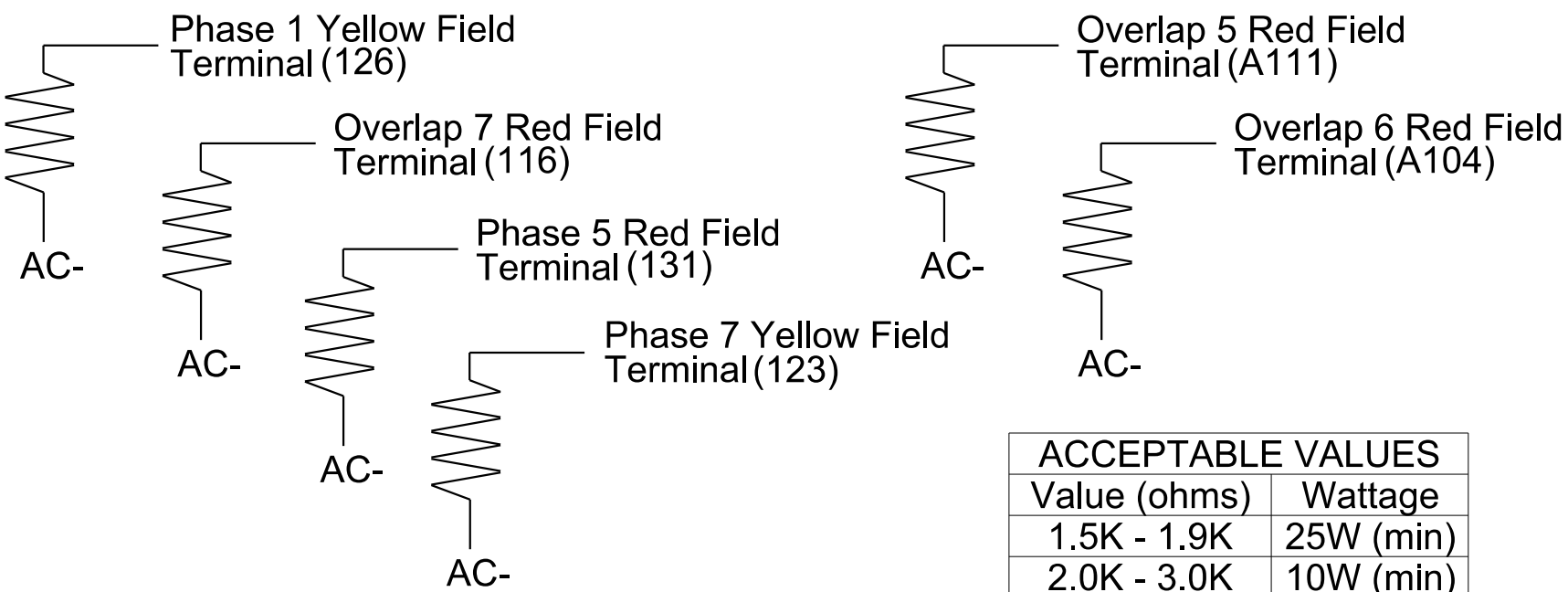
| FILE | 1                     | 2                     | 3                     | 4                     | 5                     | 6         | 7                     | 8                     | 9                     | 10                    | 11                    | 12                     | 13                    | 14                  |
|------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|---------------------|
| U    | ∅ 1<br>1A             | S<br>O<br>T           | S<br>O<br>T           | S<br>O<br>T           | S<br>O<br>T           | ∅ 4<br>4A | ∅ 4<br>4C             | S<br>O<br>T           | S<br>O<br>T           | S<br>O<br>T           | S<br>O<br>T           | ∅ 2 PED<br>DC ISOLATOR | S<br>O<br>T           | FS<br>DC ISOLATOR   |
| L    | NOT<br>USED           | Y<br>T<br>P<br>M<br>E | Y<br>T<br>P<br>M<br>E | Y<br>T<br>P<br>M<br>E | Y<br>T<br>P<br>M<br>E | ∅ 4<br>4B | ∅ 4<br>4D             | Y<br>T<br>P<br>M<br>E | Y<br>T<br>P<br>M<br>E | Y<br>T<br>P<br>M<br>E | Y<br>T<br>P<br>M<br>E | NOT<br>USED            | Y<br>T<br>P<br>M<br>E | ST<br>DC ISOLATOR   |
| U    | S<br>O<br>T           | ∅ 5<br>5B             | ∅ 6<br>6A             | S<br>O<br>T           | ∅ 7<br>7A             | ∅ 7<br>7B | S<br>O<br>T           | S<br>O<br>T           | S<br>O<br>T           | S<br>O<br>T           | S<br>O<br>T           | S<br>O<br>T            | S<br>O<br>T           | PRE1<br>AC ISOLATOR |
| L    | Y<br>T<br>P<br>M<br>E | ∅ 5<br>5C             | NOT<br>USED           | Y<br>T<br>P<br>M<br>E | NOT<br>USED           | ∅ 7<br>7C | Y<br>T<br>P<br>M<br>E | Y<br>T<br>P<br>M<br>E | Y<br>T<br>P<br>M<br>E | Y<br>T<br>P<br>M<br>E | Y<br>T<br>P<br>M<br>E | Y<br>T<br>P<br>M<br>E  | Y<br>T<br>P<br>M<br>E | NOT<br>USED         |

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

FS = FLASH SENSE  
ST = STOP TIME  
PRE = PREEMPT

LOAD RESISTOR INSTALLATION DETAIL

(install resistors as shown)



| 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 phases 2, 6, and 40 for Min Veh Recall.

3. Program phases 4 and 8 for Dual Entry.

4. Program phases 9 and 39 for No Startup Veh Call.

5. Program controller to start up in phase 2 Green No Walk, 6 Green No Walk, 9 Phase Not On, 39 Phase Not On, and 40 Green No Walk.

6. If this signal will be managed by an ATMS software, enable controller and detector logging for all detectors used at this location.

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,S10,S11,AUX S1,  
AUX S2,AUX S3,AUX S4,AUX S5,AUX S6

Phases Used.....1,2,2 PED,3,4,5,6,7,8,9\*\*,39\*\*,40\*\*  
Overlap "1".....\*  
Overlap "2".....\*  
Overlap "3".....\*  
Overlap "4".....\*  
Overlap "5".....\*  
Overlap "6".....\*  
Overlap "7".....\*

\*See overlap programming detail on sheet 2.

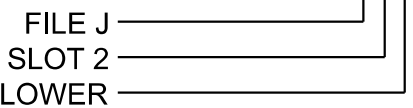
\*\*Phase used for preemption timing purposes only.

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<br>-     | 1<br>29      | 1<br>6     | 15.0<br>3.0 |             | X<br>X |               | X<br>X |                    |
| 4A                             | TB4-9,10      | I6U             | 41      | 3           | 8            | 4          |             |             | X      |               | X      |                    |
| 4B                             | TB4-11,12     | I6L             | 45      | 7           | 9            | 4          |             |             | X      |               | X      |                    |
| 4C                             | TB6-1,2       | I7U             | 65      | 31          | 10           | 4          |             |             | X      |               | X      |                    |
| 4D                             | TB6-3,4       | I7L             | 78      | 44          | 11           | 4          | 5.0         |             | X      |               | X      |                    |
| 5B                             | TB3-5,6       | J2U             | 40      | 2           | 16           | 5          | 15.0        |             | X      |               | X      |                    |
| 5C                             | TB3-7,8       | J2L             | 44      | 6           | 17           | 5          | 10.0        |             | X      |               | X      |                    |
| 6A                             | TB3-9,10      | J3U             | 64      | 30          | 18           | 6          |             |             | X      | X             | X      |                    |
| 7A                             | TB5-5,6       | J5U             | 57      | 19<br>-     | 21<br>32     | 7<br>4     | 15.0<br>3.0 |             | X<br>X |               | X<br>X |                    |
| 7B                             | TB5-9,10      | J6U             | 42      | 4           | 22           | 7          | 3.0         |             | X      |               | X      |                    |
| 7C                             | TB5-11,12     | J6L             | 46      | 8           | 23           | 7          | 3.0         |             | X      |               | X      |                    |
| PED PUSH<br>BUTTONS<br>P21,P22 | TB8-4,6       | I12U            | 67      | 33          | 2            | PED 2      |             |             |        |               |        |                    |

NOTE:  
INSTALL DC ISOLATOR  
IN INPUT FILE SLOT I12.

INPUT FILE POSITION LEGEND: J2L



SPECIAL DETECTOR NOTE

For zones 1B, 2A, 3A, 5A, & 8A, install a video 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 IN THE OFFICE OF:  
**Kimley»Horn**  
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Raleigh, NC 27601  
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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     | 8   | 8 PED | OL1    | OL2    | OL5    | OL3    | OL4    | OL6    |      |      |
| SIGNAL HEAD NO.                                                                     | 11★ | 21,22 | P21, P22 | 22  | 31★ | 41,42 | NU | 42  | 51★   | 61,62 | NU  | 71★   | 81,82  | NU     | 11★    | 31★    | 82     | 51★    | 71★  | 62   |
| RED                                                                                 | -   | 128   | -        | ★   | -   | 101   | -  | ★   | -     | 134   | -   | -     | 107    | -      | -      | -      | ★      | -      | -    | ★    |
| YELLOW                                                                              | ★   | 129   | -        | -   | -   | 102   | -  | -   | -     | 135   | -   | ★     | 108    | -      | -      | -      | -      | -      | -    | -    |
| GREEN                                                                               | -   | 130   | -        | -   | -   | 103   | -  | -   | -     | 136   | -   | -     | 109    | -      | -      | -      | -      | -      | -    | -    |
| RED ARROW                                                                           | -   | -     | -        | -   | -   | -     | -  | -   | -     | -     | -   | -     | -      | A121   | A124   | -      | A114   | A101   | -    |      |
| YELLOW ARROW                                                                        | -   | -     | -        | 117 | -   | -     | -  | 132 | -     | -     | -   | -     | -      | A122   | A125   | A112   | A115   | A102   | A105 |      |
| FLASHING YELLOW ARROW                                                               | -   | -     | -        | -   | -   | -     | -  | -   | -     | -     | -   | -     | -      | A123   | A126   | -      | A116   | A103   | -    |      |
| GREEN ARROW                                                                         | 127 | -     | -        | 118 | 118 | -     | -  | 133 | 133   | -     | -   | 124   | -      | -      | -      | A113   | -      | -      | -    | A106 |
|  | -   | -     | 113      | -   | -   | -     | -  | -   | -     | -     | -   | -     | -      | -      | -      | -      | -      | -      | -    | -    |
|  | -   | -     | 115      | -   | -   | -     | -  | -   | -     | -     | -   | -     | -      | -      | -      | -      | -      | -      | -    | -    |

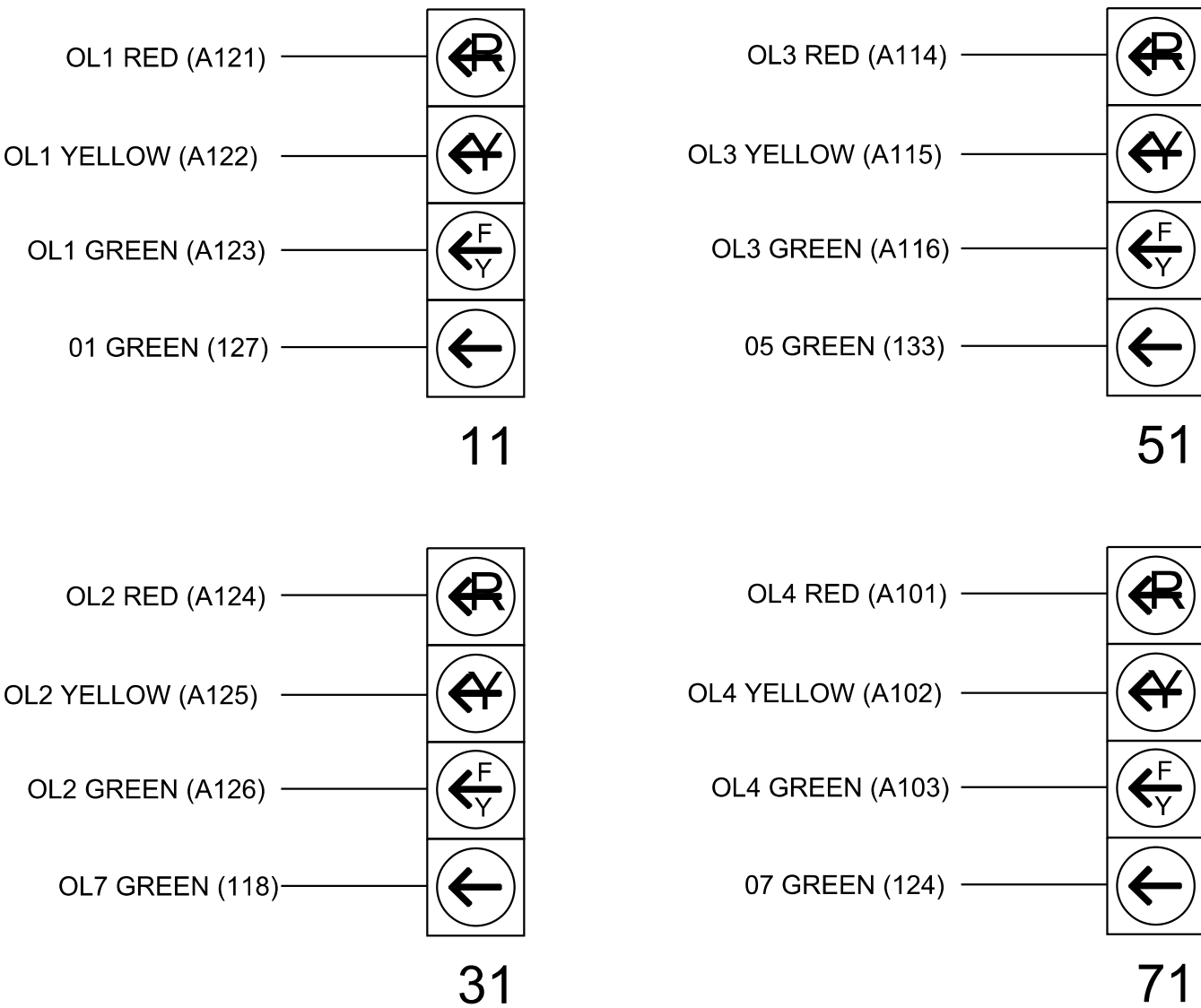
NU = Not Used

\* Denotes install load resistor. See load resistor installation detail this sheet.

★ See pictorial of head wiring in detail this sheet.

FYA SIGNAL WIRING DETAIL

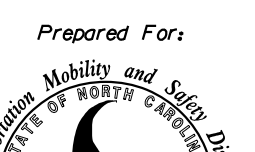
(wire signal heads as shown)



THIS ELECTRICAL DETAIL IS FOR  
THE SIGNAL DESIGN: 09-0567T3  
DESIGNED: August 2024  
SEALED: 07/14/2025  
REVISED: N/A

Electrical Detail - Temporary Design 3  
Sheet 1 of 3

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

|                                                                                                        |  |                                                                                                |  |                                                                                         |  |
|--------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------|--|
| ELECTRICAL AND PROGRAMMING<br>DETAILS FOR:                                                             |  | NC 66/SR 2377 (W. Mountain St.)<br>at<br>NC 66 (Old Hollow Road) and<br>SR 2649 (Hopkins Road) |  | SEAL<br>NORTH CAROLINA<br>PROFESSIONAL<br>ENGINEER<br>KYLE P. BAUMANN<br>SEAL<br>044434 |  |
| Prepared For:<br> |  | Division 9 Forsyth County Kernersville                                                         |  | 7/14/2025                                                                               |  |
| PLAN DATE: August 2024                                                                                 |  | REVIEWED BY: KP Baumann                                                                        |  |                                                                                         |  |
| PREPARED BY: CF Davis                                                                                  |  | REVIEWED BY:                                                                                   |  | DATE                                                                                    |  |
| REVISIONS                                                                                              |  | INIT.                                                                                          |  | DATE                                                                                    |  |
| 750 N. Greenfield Pkwy, Garner, NC 27529                                                               |  | SIGNATURE                                                                                      |  | DATE                                                                                    |  |
| S1G. INVENTORY NO. 09-0567T3                                                                           |  | DATE                                                                                           |  | DATE                                                                                    |  |