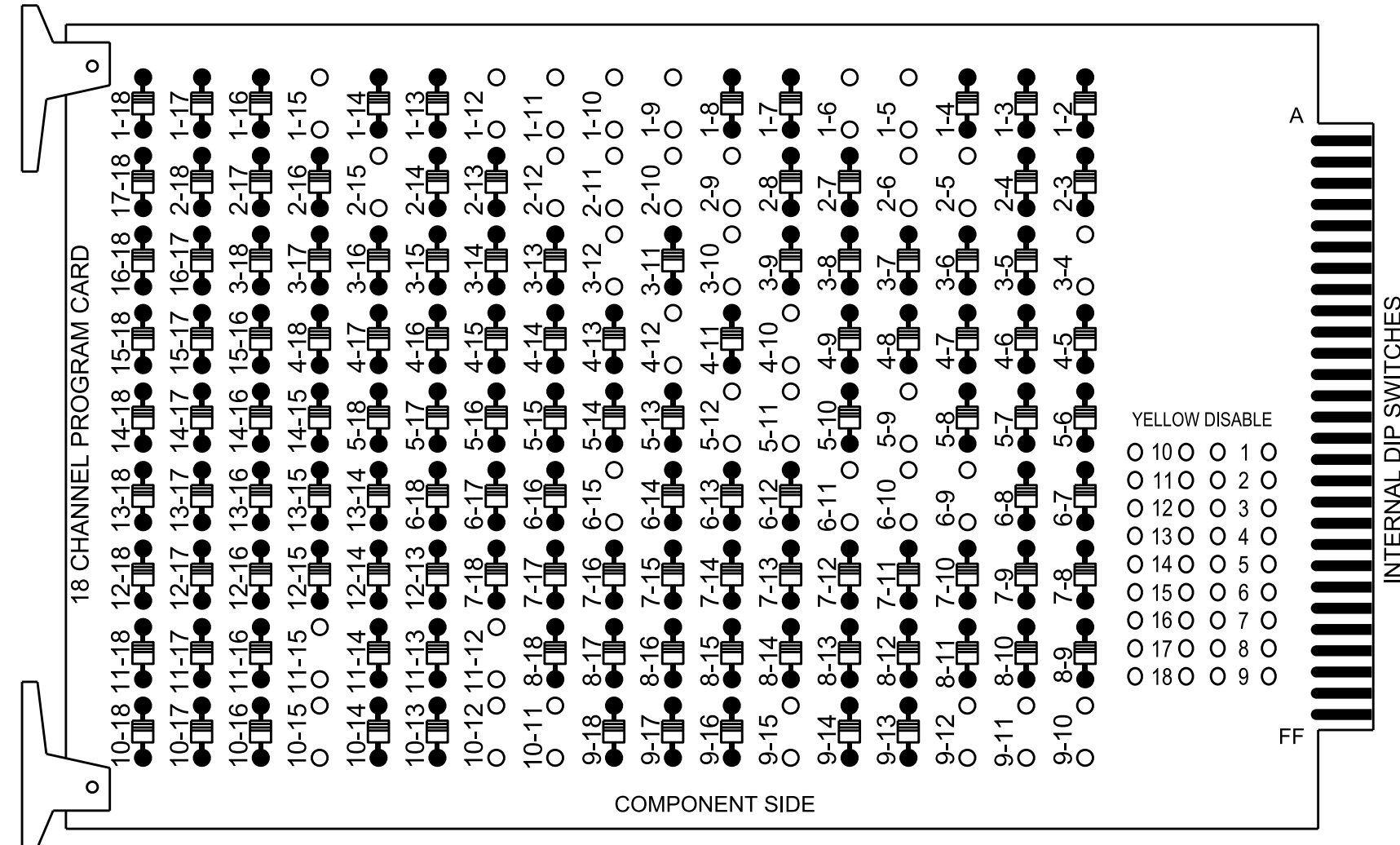


18 CHANNEL IP CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS 1-5, 1-6, 1-9, 1-10, 1-11, 1-12, 1-15, 2-5, 2-6, 2-9, 2-10, 2-11, 2-12, 2-15, 3-4, 3-10, 3-12, 4-10, 4-12, 5-9, 5-11, 5-12, 6-9, 6-10, 6-11, 6-15, 9-10, 9-11, 9-12, 9-15, 10-11, 10-12, 10-15, 11-12 and 11-15.



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.

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 plan.
- Program controller to start up in phase 2 Green No Walk and 6 Green No 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 NC 56 (Butner) CLS. Signal System #: D05-56_Butner

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, S4, S5, S7, S8, S9, AUX S1, AUX S2, AUX S4
 Phases Used.....1, 2, 4, 5, 6, 6PED
 Overlap "1".....*
 Overlap "2".....*
 Overlap "3".....*
 Overlap "4".....*

*See overlap programming detail on sheet 2

SIGNAL HEAD HOOK-UP CHART

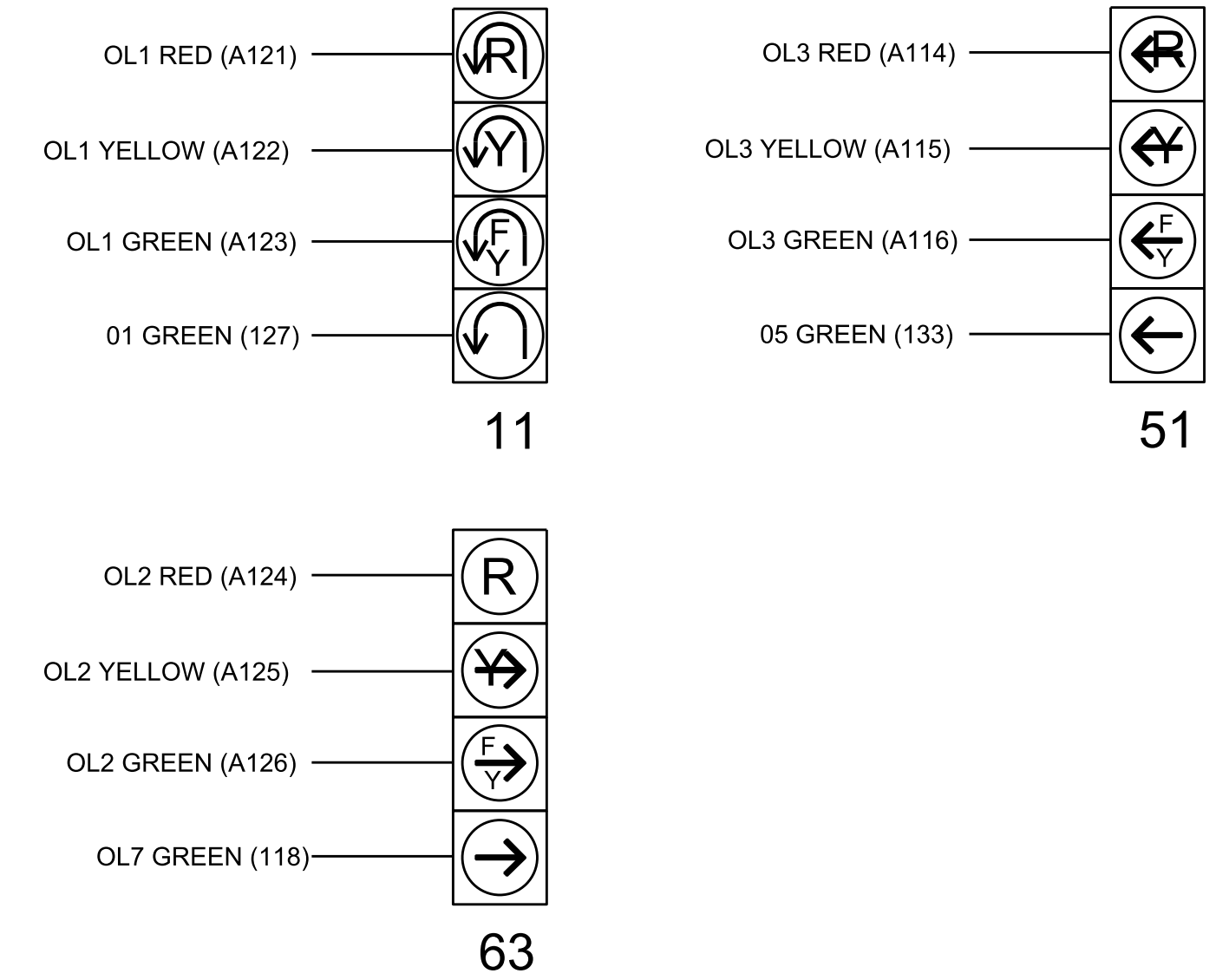
| LOAD SWITCH NO. | S1 | S2 | S3 | S4 | S5 | S6 | S7 | S8 | S9 | S10 | S11 | S12 | AUX S1 | AUX S2 | AUX S3 | AUX S4 | AUX S5 | AUX S6 | | |
|-----------------------|-----|-------|-------|-----|-------|-------|-----|-------|----------|-----|-----|-------|--------|--------|--------|--------|--------|--------|------|-----|
| CMU CHANNEL NO. | 1 | 2 | 13 | 3 | 4 | 14 | 5 | 6 | 15 | 7 | 8 | 16 | 9 | 10 | 17 | 11 | 12 | 18 | | |
| PHASE | 1 | 2 | 2 PED | OL7 | 4 | 4 PED | 5 | 6 | 6 PED | 7 | 8 | 8 PED | OL1 | OL2 | SPARE | OL3 | OL4 | SPARE | | |
| SIGNAL HEAD NO. | 11* | 21,22 | NU | 63* | 41,42 | NU | 51* | 61,62 | P61, P62 | NU | NU | NU | 11* | 63* | NU | 51* | 43 | NU | | |
| RED | 128 | | | | | | | 134 | | | | | | | A124 | | | A101 | | |
| YELLOW | * | 129 | | * | | | * | 135 | | | | | | | | | | | | |
| GREEN | | 130 | | | | | | 136 | | | | | | | | | | | | |
| RED ARROW | | | | | 101 | | | | | | | | | | A121 | | | A114 | | |
| YELLOW ARROW | | | | | 102 | | | | | | | | | | A122 | A125 | | A115 | A102 | |
| FLASHING YELLOW ARROW | | | | | | | | | | | | | | | A123 | A126 | | A116 | | |
| GREEN ARROW | 127 | | | 118 | 103 | | 133 | | | | | | | | | | | | A103 | |
| Hand icon | | | | | | | | | | | | | | | | | | | 119 | |
| Person icon | | | | | | | | | | | | | | | | | | | | 121 |

NU = Not Used

* Denotes install load resistor. See load resistor installation detail this sheet.
 * See pictorial of head wiring in detail this sheet.

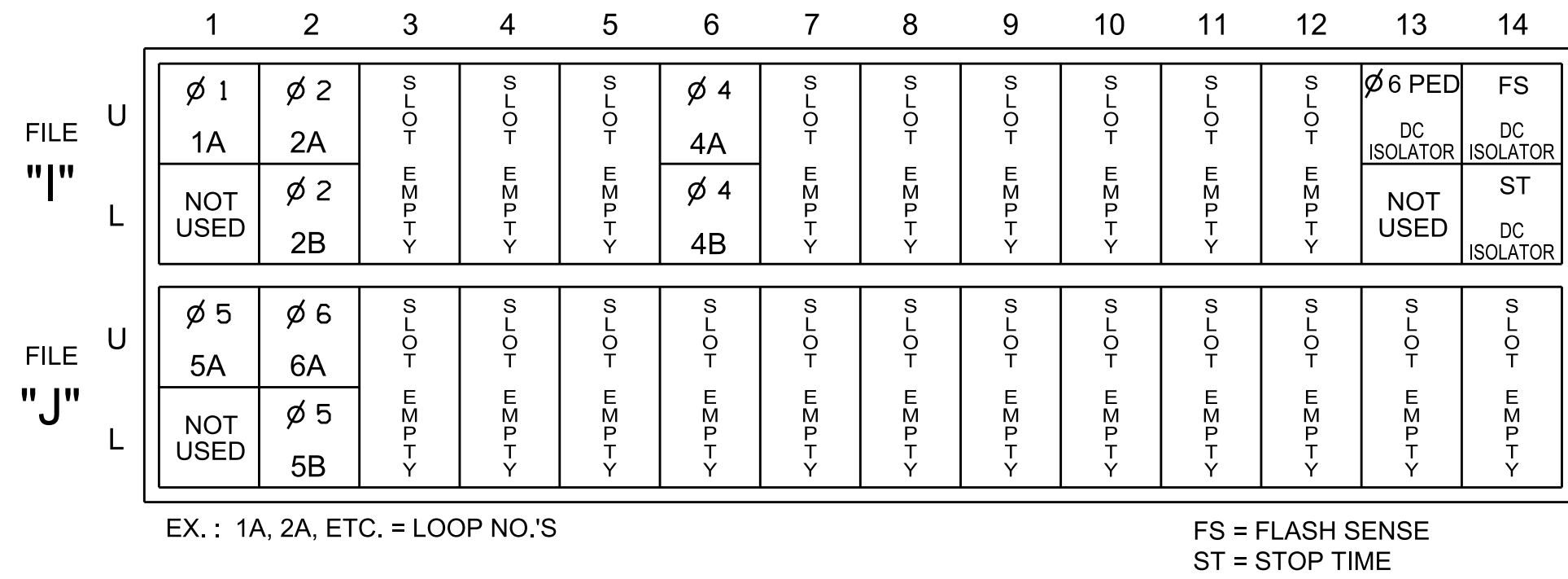
FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



INPUT FILE POSITION LAYOUT

(front view)



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

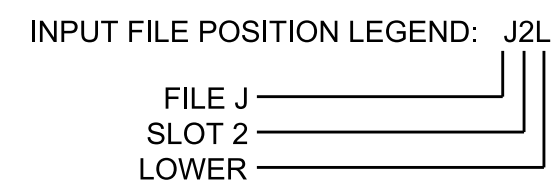
FS = FLASH SENSE
 ST = STOP TIME

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 | |
| 2A | TB2-5,6 | I2U | 39 | 1 | 29 * | 6 | | | X | | X | |
| 2B | TB2-7,8 | I2L | 43 | 5 | 3 | 2 | | | X | | X | |
| 4A | TB4-9,10 | I6U | 41 | 3 | 8 | 4 | | | X | | X | |
| 4B | TB4-11,12 | I6L | 45 | 7 | 9 | 4 | | | X | | X | |
| 5A | TB3-1,2 | J1U | 55 | 17 | 15 * | 5 | 15.0 | | X | | X | |
| 5B | TB3-7,8 | J2L | 44 | 6 | 17 | 5 | 15.0 | | X | | X | |
| 6A | TB3-5,6 | J2U | 40 | 2 | 16 | 6 | | | X | | X | |
| PED PUSH BUTTONS | | | | | | | | | | | | |
| P61 P62 | TB8-7,9 | I13U | 68 | 34 | 6 | PED 6 | | | | | | |

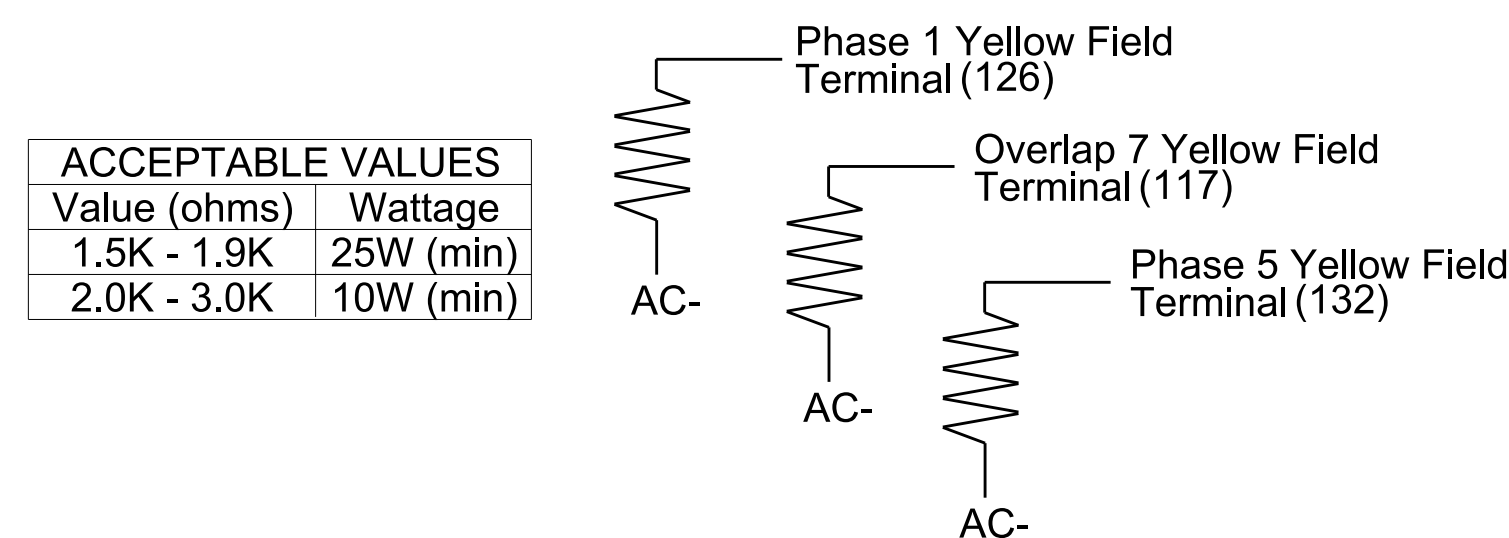
NOTE: INSTALL DC ISOLATOR IN INPUT FILE SLOT I13.

* For the detectors to work as shown on the signal plan see the Detector Programming Detail for Alternate Phasing on Sheet 2 of this plan.



LOAD RESISTOR INSTALLATION DETAIL

(install resistors as shown)



FLASHER CIRCUIT MODIFICATION DETAIL

IN ORDER TO INSURE THAT SIGNALS FLASH CONCURRENTLY ON THE SAME APPROACH, MAKE THE FOLLOWING FLASHER CIRCUIT CHANGES:

- ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-4 AND TERMINATE ON T2-2.
- ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-5 AND TERMINATE ON T2-3.
- REMOVE FLASHER UNIT 2.

THE CHANGES LISTED ABOVE TIES ALL PHASES AND OVERLAPS TO FLASHER UNIT 1.

This plan supersedes the plan signed and sealed on 11/16/2018.

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 05-1095
 DESIGNED: February 2024
 SEALED: 03/14/2024
 REVISED: N/A

Electrical Detail - Sheet 1 of 2

Prepared in the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

NC 56 at SR 1215 (W. Lyon Station Road)

Division 5 Granville County Butner

PLAN DATE: March 2024 REVIEWED BY:

PREPARED BY: Sarah Kirkpatrick REVIEWED BY:

REVISIONS: INIT. DATE

Seal of Ryan W. Hough, Professional Engineer, License No. 036833, State of North Carolina.

DocuSigned by: Ryan W. Hough 03/15/2024

SIG. INVENTORY NO. 05-1095