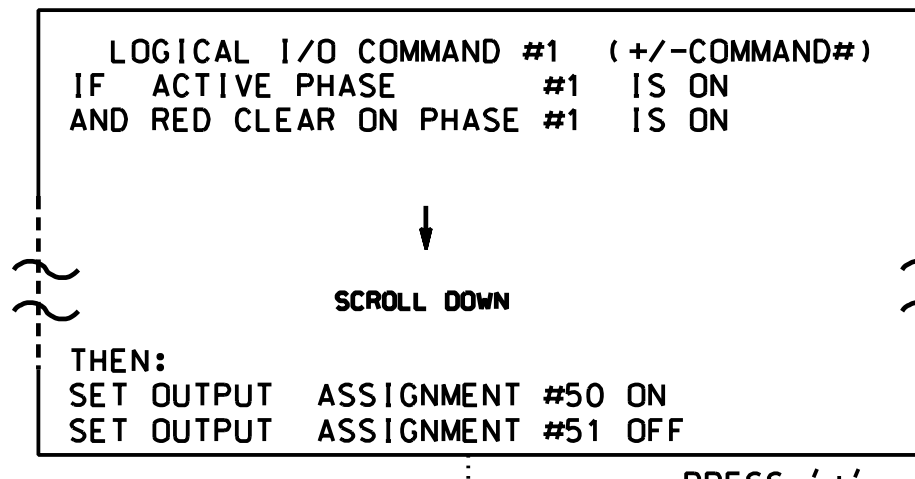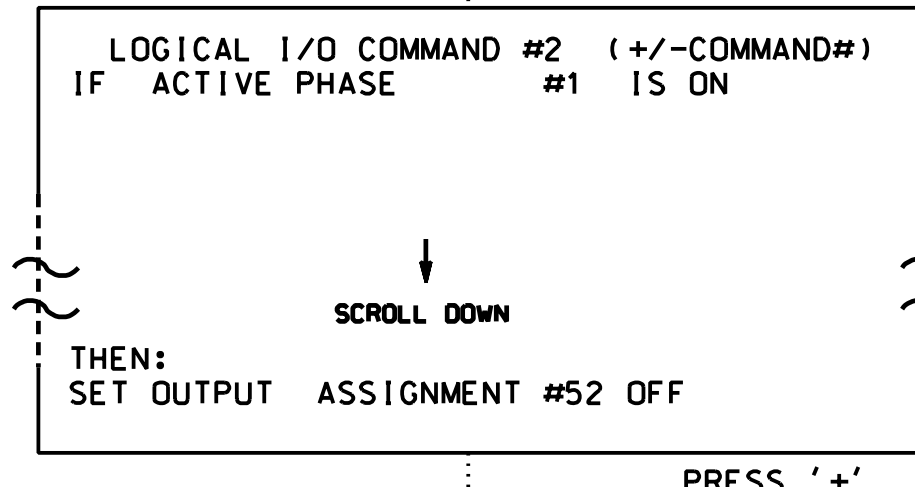# LOGICAL I/O PROCESSOR PROGRAMMING DETAIL

TO PRODUCE SPECIAL FYA-PPLT SIGNAL SEQUENCE
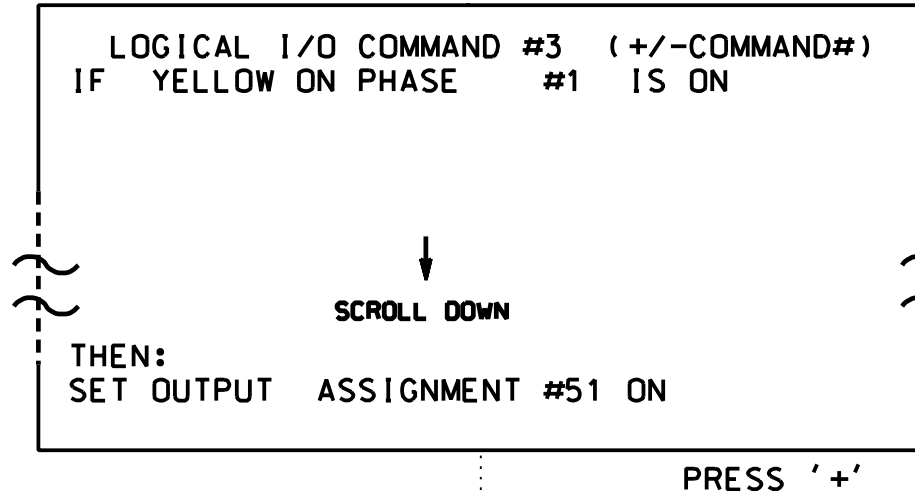
(program controller as shown below)

1. FROM MAIN MENU PRESS '2' (PHASE CONTROL), THEN '1' (PHASE CONTROL FUNCTIONS). SCROLL TO THE BOTTOM OF THE MENU AND ENABLE ACT LOGIC COMMANDS 1, 2, 3, 4, 5, 6, 7, 8, and 9.

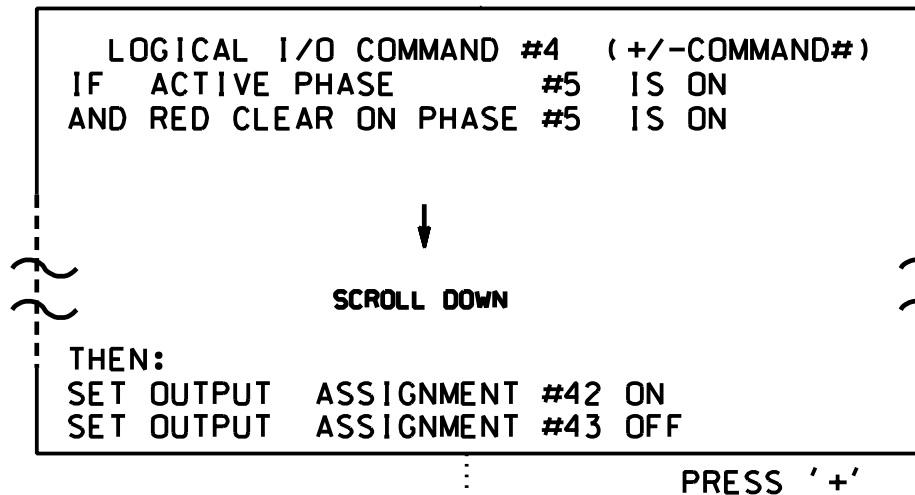2. FROM MAIN MENU PRESS '6' (OUTPUTS), THEN '3' (LOGICAL I/O PROCESSOR).

```
LOGICAL I/O COMMAND #1  (+/-COMMAND#)
IF   ACTIVE PHASE       #1  IS ON
AND RED CLEAR ON PHASE  #1  IS ON

            ↓
        SCROLL DOWN

THEN:
SET OUTPUT   ASSIGNMENT #50 ON
SET OUTPUT   ASSIGNMENT #51 OFF
                         PRESS '+'
```
NOTE: LOGIC FOR PHASE 1 RED CLEAR WHEN TRANSITIONING FROM PHASE 1 TO PHASE 2 (HEAD 11).

```
LOGICAL I/O COMMAND #2  (+/-COMMAND#)
IF   ACTIVE PHASE       #1  IS ON

            ↓
        SCROLL DOWN

THEN:
SET OUTPUT   ASSIGNMENT #52 OFF
                         PRESS '+'
```
NOTE: LOGIC FOR SWITCHING FLASHING YELLOW ARROW "OFF" DURING PHASE 1 (HEAD 11).

```
LOGICAL I/O COMMAND #3  (+/-COMMAND#)
IF   YELLOW ON PHASE    #1  IS ON

            ↓
        SCROLL DOWN

THEN:
SET OUTPUT   ASSIGNMENT #51 ON
                         PRESS '+'
```
NOTE: LOGIC FOR YELLOW ARROW CLEARANCE FROM PHASE 1 (HEAD 11).

```
LOGICAL I/O COMMAND #4  (+/-COMMAND#)
IF   ACTIVE PHASE       #5  IS ON
AND RED CLEAR ON PHASE  #5  IS ON

            ↓
        SCROLL DOWN

THEN:
SET OUTPUT   ASSIGNMENT #42 ON
SET OUTPUT   ASSIGNMENT #43 OFF
                         PRESS '+'
```
NOTE: LOGIC FOR PHASE 5 RED CLEAR WHEN TRANSITIONING FROM PHASE 5 TO PHASE 6 (HEAD 51).
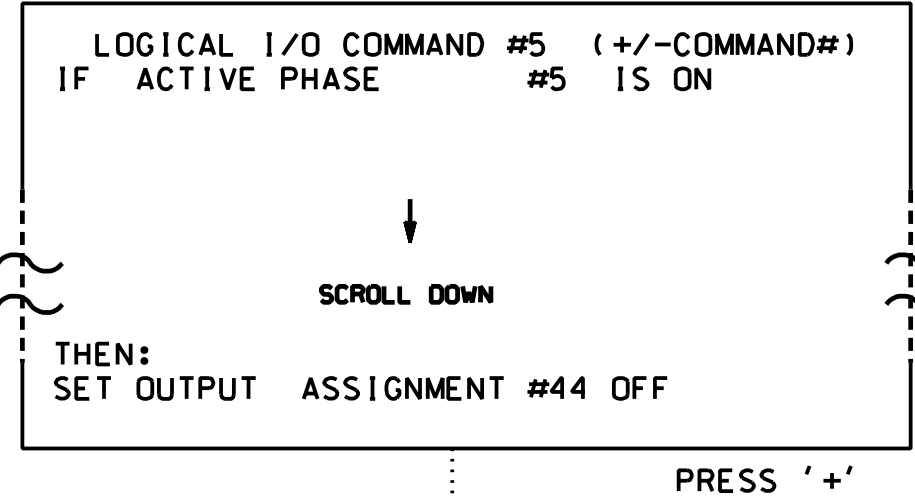
```
LOGICAL I/O COMMAND #5  (+/-COMMAND#)
IF   ACTIVE PHASE       #5  IS ON

            ↓
        SCROLL DOWN

THEN:
SET OUTPUT   ASSIGNMENT #44 OFF
                         PRESS '+'
```
NOTE: LOGIC FOR SWITCHING FLASHING YELLOW ARROW "OFF" DURING PHASE 5 (HEAD 51).
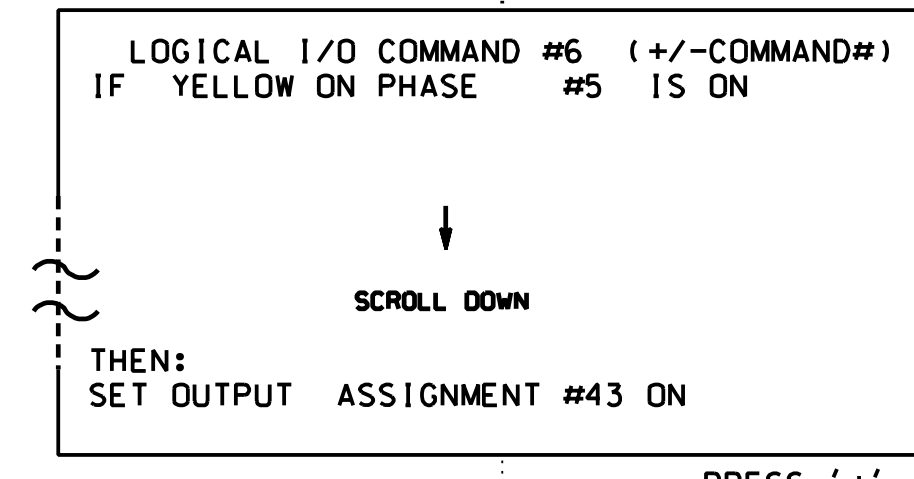
```
LOGICAL I/O COMMAND #6  (+/-COMMAND#)
IF   YELLOW ON PHASE    #5  IS ON

            ↓
        SCROLL DOWN

THEN:
SET OUTPUT   ASSIGNMENT #43 ON
                         PRESS '+'
```
NOTE: LOGIC FOR YELLOW ARROW CLEARANCE FROM PHASE 5 (HEAD 51).
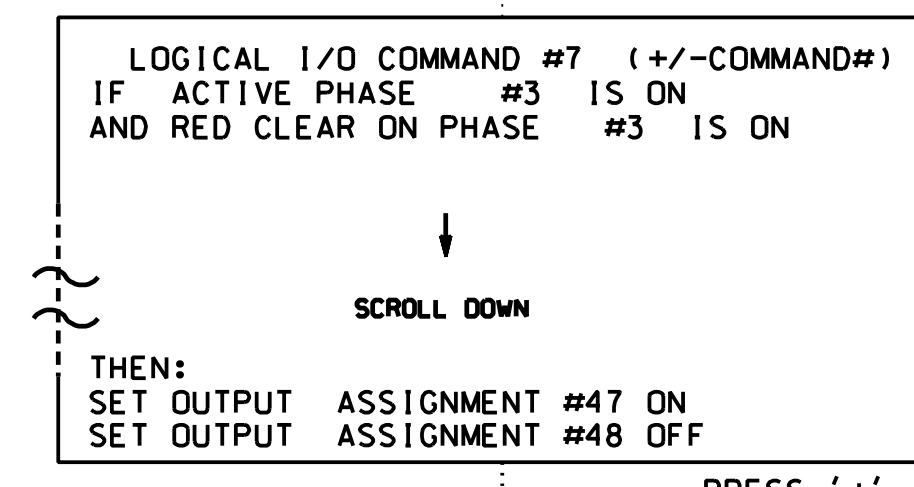
```
LOGICAL I/O COMMAND #7  (+/-COMMAND#)
IF   ACTIVE PHASE       #3  IS ON
AND RED CLEAR ON PHASE  #3  IS ON

            ↓
        SCROLL DOWN

THEN:
SET OUTPUT   ASSIGNMENT #47 ON
SET OUTPUT   ASSIGNMENT #48 OFF
                         PRESS '+'
```
NOTE: LOGIC FOR PHASE 6 RED CLEAR WHEN TRANSITIONING FROM PHASE 3 TO PHASE 6 (HEAD 63).
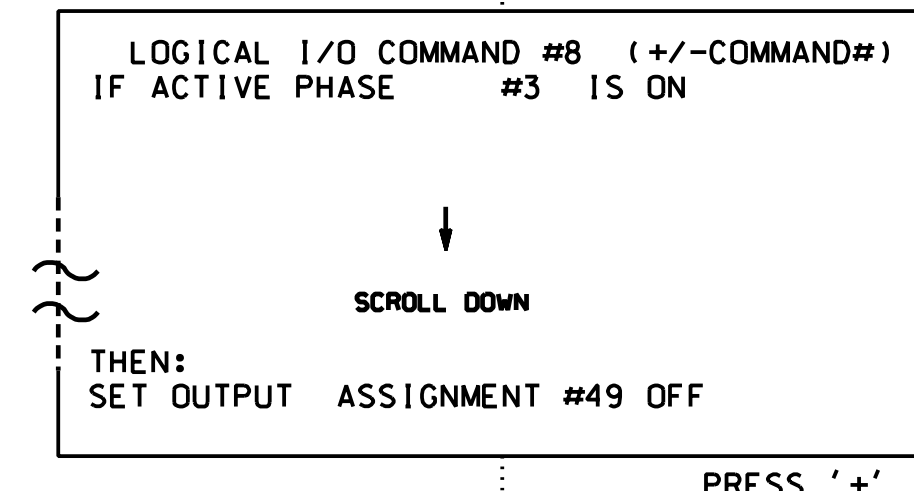
```
LOGICAL I/O COMMAND #8  (+/-COMMAND#)
IF ACTIVE PHASE         #3  IS ON

            ↓
        SCROLL DOWN

THEN:
SET OUTPUT   ASSIGNMENT #49 OFF
                         PRESS '+'
```
NOTE: LOGIC FOR SWITCHING FLASHING YELLOW ARROW "OFF" DURING PHASE 3 (HEAD 63).
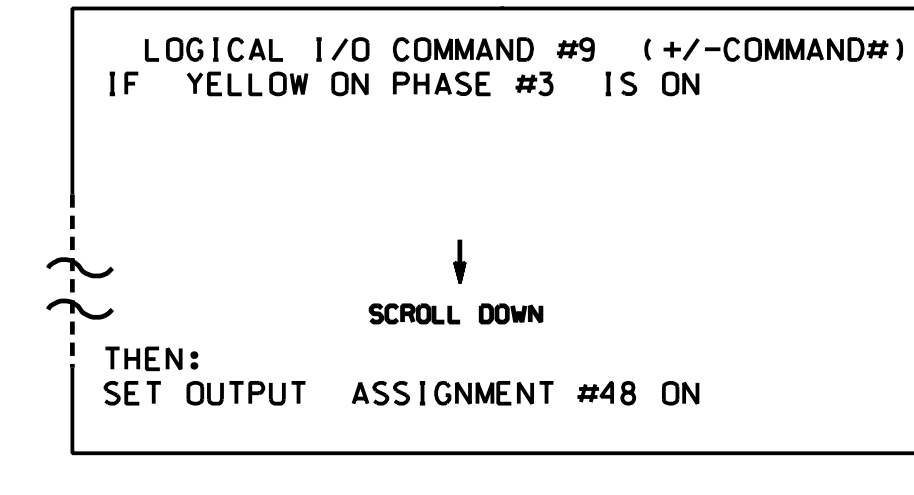
```
LOGICAL I/O COMMAND #9  (+/-COMMAND#)
IF   YELLOW ON PHASE #3  IS ON

            ↓
        SCROLL DOWN

THEN:
SET OUTPUT   ASSIGNMENT #48 ON
                         PRESS '+'
```
NOTE: LOGIC FOR YELLOW ARROW CLEARANCE FROM PHASE 6 (HEAD 63).

LOGIC I/O PROCESSOR PROGRAMMING COMPLETE

OUTPUT REFERENCE SCHEDULE
USE TO INTERPRET LOGIC PROCESSOR

```
OUTPUT 42 = Overlap C Red
OUTPUT 43 = Overlap C Yellow
OUTPUT 44 = Overlap C Green
OUTPUT 47 = Overlap B Red
OUTPUT 48 = Overlap B Yellow
OUTPUT 49 = Overlap B Green
OUTPUT 50 = Overlap A Red
OUTPUT 51 = Overlap A Yellow
OUTPUT 52 = Overlap A Green
```
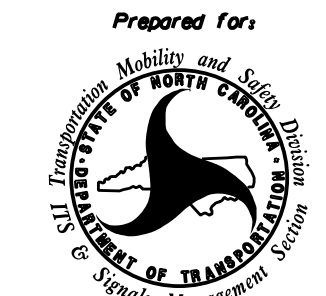
Electrical Detail - Sheet 2 of 8
New Installation
Final Design

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 03-1125
DESIGNED: June 2017
SEALED: 9/10/2021
REVISED: N/A

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

ELECTRICAL AND PROGRAMMING DETAILS FOR:

Prepared For:
Mobility and Safety Division
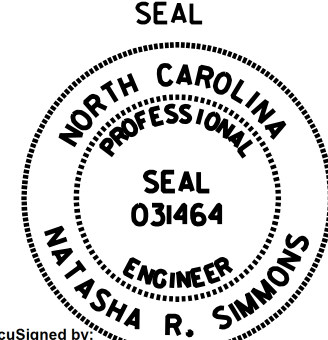STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Signal Management Section

750 N.Greenfield Pkwy.,Garner,NC 27529

NC 133 (Long Beach Road) at
SR 1969 (Old Long Beach Road)/
Southport Crossing Entrance

Division 03	Brunswick Co.	Southport
PLAN DATE:	June 2017	REVIEWED BY: A.D. Klinksiek
PREPARED BY: A.H. Thornburg		REVIEWED BY: N.R. Simmons

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA
PROFESSIONAL
SEAL
031464
ENGINEER
NATASHA R. SIMMONS

DocuSigned by:
Natasha Simmons
F6DAB6D73AD845A...
SIGNATURE   9/14/2021
                   DATE
SIG. INVENTORY NO. 03-1125

HNTB
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