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, 9, 10, 11 and 12.

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 3 RED Clear when transitioning from Phase 3 to Phase 4 (Head 31).

```
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 31).

```
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 3 (Head 31).

```
LOGICAL I/O COMMAND #10  (+/-COMMAND#)
IF   ACTIVE PHASE      #7   IS ON
AND  RED CLEAR ON PHASE #7  IS ON

              SCROLL DOWN

THEN:
SET OUTPUT   ASSIGNMENT #39 ON
SET OUTPUT   ASSIGNMENT #40 OFF
```
PRESS '+'

NOTE: Logic for Phase 7 RED Clear when transitioning from Phase 7 to Phase 8 (Head 71).

```
LOGICAL I/O COMMAND #11  (+/-COMMAND#)
IF   ACTIVE PHASE      #7   IS ON

              SCROLL DOWN

THEN:
SET OUTPUT   ASSIGNMENT #41 OFF
```
PRESS '+'

NOTE: Logic for Switching Flashing Yellow Arrow "OFF" during Phase 7 (Head 71).

```
LOGICAL I/O COMMAND #12  (+/-COMMAND#)
IF   YELLOW ON PHASE   #7   IS ON

              SCROLL DOWN

THEN:
SET OUTPUT   ASSIGNMENT #40 ON
```

NOTE: Logic for Yellow Arrow Clearance from Phase 7 (Head 71).

LOGIC I/O PROCESSOR PROGRAMMING COMPLETE

OVERLAP PROGRAMMING DETAIL

(program controller as shown below)

From Main Menu press '8' (OVERLAPS), then '1' (VEHICLE OVERLAP SETTINGS).

```
PAGE 1: VEHICLE OVERLAP 'A' SETTINGS
PHASE:           :1234567891011213141516
VEH OVL PARENTS:: XX
VEH OVL NOT VEH::
VEH OVL NOT PED::
VEH OVL GRN EXT::
STARTUP COLOR: _ RED  _ YELLOW  _ GREEN
FLASH COLORS:  _ RED  _ YELLOW  X GREEN
SELECT VEHICLE OVERLAP OPTIONS:   (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?...Y
GREEN EXTENSION (0-255 SEC).........0
YELLOW CLEAR (O=PARENT.3-25.5 SEC)..0.0
RED CLEAR (O=PARENT.0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (O=NONE. 1-16)....0
```
PRESS '+'   NOTICE GREEN FLASH

```
PAGE 1: VEHICLE OVERLAP 'B' SETTINGS
PHASE:           :1234567891011213141516
VEH OVL PARENTS::  XX
VEH OVL NOT VEH::
VEH OVL NOT PED::
VEH OVL GRN EXT::
STARTUP COLOR: _ RED  _ YELLOW  _ GREEN
FLASH COLORS:  _ RED  _ YELLOW  X GREEN
SELECT VEHICLE OVERLAP OPTIONS:   (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?...N
GREEN EXTENSION (0-255 SEC).........0
YELLOW CLEAR (O=PARENT.3-25.5 SEC)..0.0
RED CLEAR (O=PARENT.0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (O=NONE. 1-16)....0
```
PRESS '+'   NOTICE GREEN FLASH

```
PAGE 1: VEHICLE OVERLAP 'C' SETTINGS
PHASE:           :1234567891011213141516
VEH OVL PARENTS::    XX
VEH OVL NOT VEH::
VEH OVL NOT PED::
VEH OVL GRN EXT::
STARTUP COLOR: _ RED  _ YELLOW  _ GREEN
FLASH COLORS:  _ RED  _ YELLOW  X GREEN
SELECT VEHICLE OVERLAP OPTIONS:   (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?...Y
GREEN EXTENSION (0-255 SEC).........0
YELLOW CLEAR (O=PARENT.3-25.5 SEC)..0.0
RED CLEAR (O=PARENT.0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (O=NONE. 1-16)....0
```
PRESS '+'   NOTICE GREEN FLASH

```
PAGE 1: VEHICLE OVERLAP 'D' SETTINGS
PHASE:           :1234567891011213141516
VEH OVL PARENTS::      XX
VEH OVL NOT VEH::
VEH OVL NOT PED::
VEH OVL GRN EXT::
STARTUP COLOR: _ RED  _ YELLOW  _ GREEN
FLASH COLORS:  _ RED  _ YELLOW  X GREEN
SELECT VEHICLE OVERLAP OPTIONS:   (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?...N
GREEN EXTENSION (0-255 SEC).........0
YELLOW CLEAR (O=PARENT.3-25.5 SEC)..0.0
RED CLEAR (O=PARENT.0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (O=NONE. 1-16)....0
```
PRESS '+'

```
PAGE 1: VEHICLE OVERLAP 'E' SETTINGS
PHASE:           :1234567891011213141516
VEH OVL PARENTS::        X
VEH OVL NOT VEH::
VEH OVL NOT PED::
VEH OVL GRN EXT::
STARTUP COLOR: _ RED  _ YELLOW  _ GREEN
FLASH COLORS:  _ RED  _ YELLOW  _ GREEN
SELECT VEHICLE OVERLAP OPTIONS:   (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?...N
GREEN EXTENSION (0-255 SEC).........0
YELLOW CLEAR (O=PARENT.3-25.5 SEC)..0.0
RED CLEAR (O=PARENT.0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (O=NONE. 1-16)....0
```
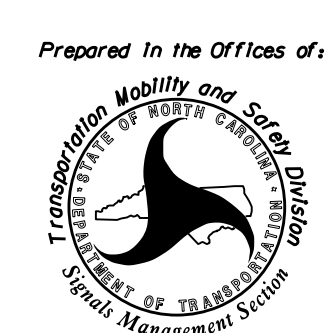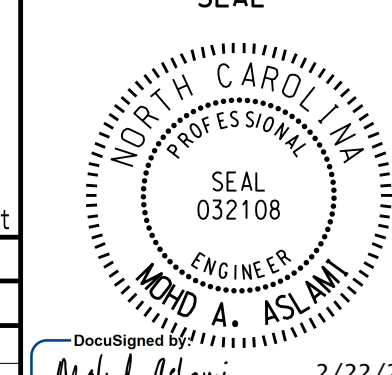PRESS '+'

OVERLAP PROGRAMMING COMPLETE

OUTPUT REFERENCE SCHEDULE

USE TO INTERPRET LOGIC PROCESSOR

```
OUTPUT 39 = Overlap D Red
OUTPUT 40 = Overlap D Yellow
OUTPUT 41 = Overlap D Green
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
```

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 04-0667
DESIGNED: January 2017
SEALED: 2/14/17
REVISED: N/A

Electrical Detail - Sheet 2 of 4

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

ELECTRICAL AND PROGRAMMING DETAILS FOR:

Prepared In the Offices of:

Transportation Mobility and Safety Division
Signal Management Section
750 N.Greenfield Pkwy,Garner,NC 27529

US 64 Alternate
at
NC 43 Bypass/
SR 1250 (Springfield Road)

Division 4	Edgecombe County	Rocky Mount
PLAN DATE: February 2017	REVIEWED BY: BAS	
PREPARED BY: B. Simmons	REVIEWED BY: KMM	

REVISIONS

	INIT.	DATE

SEAL

NORTH CAROLINA
PROFESSIONAL ENGINEER
SEAL
032108
MOHD A. ASLAMI

Mohd Aslami   2/22/2017

SIG. INVENTORY NO. 04-0667