LOGICAL I/O PROCESSOR PROGRAMMING DETAIL TO PRODUCE

SPECIAL FYA-PPLT SIGNAL SEQUENCE AND FIRE HOUSE PILOT LAMP LOGIC

(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 AND 8.

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
```
NOTE: LOGIC FOR PHASE 1 RED CLEAR WHEN TRANSITIONING FROM PHASE 1 TO PHASE 2 (HEAD 11).

SCROLL DOWN

```
THEN:
SET OUTPUT   ASSIGNMENT #50 ON
SET OUTPUT   ASSIGNMENT #51 OFF
```
PRESS '+'

```
LOGICAL I/O COMMAND #2  (+/-COMMAND#)
IF  ACTIVE PHASE       #1  IS ON
```
NOTE: LOGIC FOR SWITCHING FLASHING YELLOW ARROW "OFF" DURING PHASE 1 (HEAD 11).

SCROLL DOWN

```
THEN:
SET OUTPUT   ASSIGNMENT #52 OFF
```
PRESS '+'

```
LOGICAL I/O COMMAND #3  (+/-COMMAND#)
IF  YELLOW ON PHASE    #1  IS ON
```
NOTE: LOGIC FOR YELLOW ARROW CLEARANCE FROM PHASE 1 (HEAD 11).

SCROLL DOWN

```
THEN:
SET OUTPUT   ASSIGNMENT #51 ON
```
PRESS '+'

```
LOGICAL I/O COMMAND #4  (+/-COMMAND#)
IF  ACTIVE PHASE       #5  IS ON
AND RED CLEAR ON PHASE #5  IS ON
```
NOTE: LOGIC FOR PHASE 5 RED CLEAR WHEN TRANSITIONING FROM PHASE 5 TO PHASE 6 (HEAD 51).

SCROLL DOWN

```
THEN:
SET OUTPUT   ASSIGNMENT #42 ON
SET OUTPUT   ASSIGNMENT #43 OFF
```
PRESS '+'

```
LOGICAL I/O COMMAND #5  (+/-COMMAND#)
IF  ACTIVE PHASE       #5  IS ON
```
NOTE: LOGIC FOR SWITCHING FLASHING YELLOW ARROW "OFF" DURING PHASE 5 (HEAD 51).

SCROLL DOWN

```
THEN:
SET OUTPUT   ASSIGNMENT #44 OFF
```
PRESS '+'

```
LOGICAL I/O COMMAND #6  (+/-COMMAND#)
IF  YELLOW ON PHASE    #5  IS ON
```
NOTE: LOGIC FOR YELLOW ARROW CLEARANCE FROM PHASE 5 (HEAD 51).

SCROLL DOWN

```
THEN:
SET OUTPUT   ASSIGNMENT #43 ON
```
PRESS '+'

```
LOGICAL I/O COMMAND #7  (+/-COMMAND#)
IF  INPUT      ASSIGNMENT #14 IS ON
OR  ACTIVE PREEMPTION    #2  IS ON
```
NOTE: FIRE HOUSE PILOT LAMP LOGIC.

SCROLL DOWN

```
THEN:
SET OUTPUT   ASSIGNMENT #35 ON
```
PRESS '+'

```
LOGICAL I/O COMMAND #8  (+/-COMMAND#)
IF  INPUT      ASSIGNMENT #14 IS OFF
AND ACTIVE PREEMPTION    #2  IS OFF
```
NOTE: FIRE HOUSE PILOT LAMP LOGIC.

SCROLL DOWN

```
THEN:
SET OUTPUT   ASSIGNMENT #35 OFF
```
END OF PROGRAMMING

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   ← NOTICE GREEN FLASH
SELECT VEHICLE OVERLAP OPTIONS:    (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?...Y
GREEN EXTENSION (0-255 SEC).........0
YELLOW CLEAR (0=PARENT.3-25.5 SEC)..0.0
RED CLEAR (0=PARENT.0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (0=NONE, 1-16)....0
```
PRESS '+' TWICE

```
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   ← NOTICE GREEN FLASH
SELECT VEHICLE OVERLAP OPTIONS:    (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?...Y
GREEN EXTENSION (0-255 SEC).........0
YELLOW CLEAR (0=PARENT.3-25.5 SEC)..0.0
RED CLEAR (0=PARENT.0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (0=NONE, 1-16)....0
```

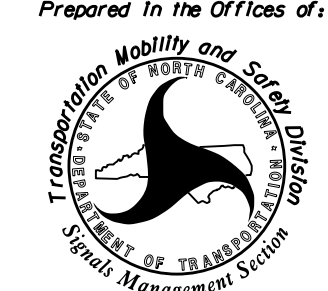OVERLAP PROGRAMMING COMPLETE

```
THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 14-0740
DESIGNED: January 2016
SEALED: 11-09-16
REVISED: N/A
```

OUTPUT REFERENCE SCHEDULE

```
OUTPUT 42 = Overlap C Red
OUTPUT 43 = Overlap C Yellow
OUTPUT 44 = Overlap C Green
OUTPUT 50 = Overlap A Red
OUTPUT 51 = Overlap A Yellow
OUTPUT 52 = Overlap A Green
INPUT  14 = Preempt 2 Input
OUTPUT 35 = Phase 4 Ped Yellow
```

Electrical Detail - Sheet 2 of 3

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ELECTRICAL AND PROGRAMMING DETAILS FOR:

Prepared in the Offices of:

Transportation Mobility and Safety Division
DEPARTMENT OF TRANSPORTATION
Signals Management Section

750 N.Greenfield Pkwy,Garner,NC 27529

US 25 (Hendersonville Road)
at
SR 1358 (Fanning Bridge Road)
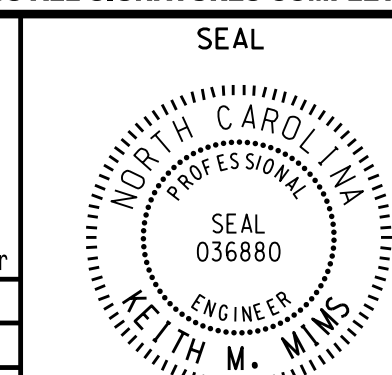
Division 14	Henderson County	Fletcher
PLAN DATE: November 2016	REVIEWED BY:	BAS
PREPARED BY: James Peterson	REVIEWED BY:	

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA
PROFESSIONAL
SEAL
036880
KEITH M. MIMS
ENGINEER

DocuSigned by:
Keith M. Mims
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SIG. INVENTORY NO. 14-0740