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:           12345678910111213141516
 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 (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 '+'

```
 PAGE 1: VEHICLE OVERLAP 'B' SETTINGS
  PHASE:          |12345678910111213141516
 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  X GREEN      ← NOTICE GREEN FLASH
 SELECT VEHICLE OVERLAP OPTIONS:   (Y/N)
 FLASH YELLOW IN CONTROLLER FLASH?...N
 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 'D' SETTINGS
  PHASE:          |12345678910111213141516
 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?...N
 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
```

USING + OR - KEY POSITION ON
OVERLAP 'P'

```
 PAGE 1: VEHICLE OVERLAP 'P' SETTINGS
  PHASE:          |12345678910111213141516
 VEH OVL PARENTS:|XX X XXX
 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 (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

```
The utilization of overlap P ensures consistent
clearance timing during transition to preemption
```
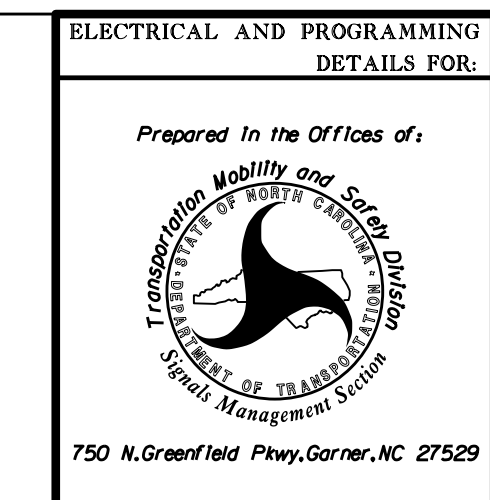
FLASHER CIRCUIT MODIFICATION DETAIL

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

1. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-4 AND TERMINATE ON T2-2.

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

3. REMOVE FLASHER UNIT 2.

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

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 AND 3.

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

```
 LOGICAL I/O COMMAND #1  (+/-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
```
NOTE: LOGIC FOR PHASE 7 RED CLEAR WHEN TRANSITIONING FROM PHASE 7 TO PHASE 8 (HEAD 71).

PRESS '+'

```
 LOGICAL I/O COMMAND #2  (+/-COMMAND#)
 IF  ACTIVE PHASE       #7  IS ON

          SCROLL DOWN

 THEN:
 SET OUTPUT  ASSIGNMENT #41 OFF
```
NOTE: LOGIC FOR SWITCHING FLASHING YELLOW ARROW "OFF" DURING PHASE 7 (HEAD 71).

PRESS '+'

```
 LOGICAL I/O COMMAND #3  (+/-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

```
 OUTPUT REFERENCE SCHEDULE
 USE TO INTERPRET LOGIC PROCESSOR

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

Electrical Detail - Sheet 2 of 3

ELECTRICAL AND PROGRAMMING DETAILS FOR:

NC 81 (Hendersonville Rd.)
at
US 25A (Lodge St.)

Prepared In the Offices of:

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

Division 13	Buncombe County	Asheville
PLAN DATE: August 2016	REVIEWED BY: T. Joyce	
PREPARED BY: C. Strickland	REVIEWED BY:	

REVISIONS	INIT.	DATE

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 13-0242
DESIGNED: January 2016
SEALED: 11/7/2016
REVISED:

SEAL

NORTH CAROLINA
SEAL
030530
PROFESSIONAL ENGINEER
ZACHARY M. LITTLE

DocuSigned by:
Zachary M. Little   11/8/2016
DC25FD04F5341F   DATE

SIG. INVENTORY NO. 13-0242