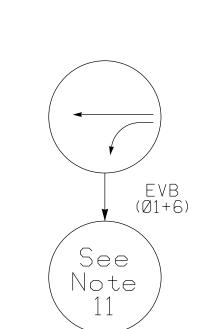
02+6



| TABLE OF OPERATION | | | | | | | | | | | | |
|--------------------|------------|--------------|-------------|-----|----------------|--|--|--|--|--|--|--|
| | PHASE | | | | | | | | | | | |
| SIGNAL FACE | Ø 1 + 6 | Ø2+6 | Ø 4 | E>B | FLASH | | | | | | | |
| 1.1 | • | F | | - | - Y | | | | | | | |
| 21,22 | R | G | R | R | Y | | | | | | | |
| 41,42 | R | R | G | R | R | | | | | | | |
| 61,62 | \odot | G | R | G | Y | | | | | | | |
| P21,P22 | D·W | W | D·W | D·W | DRK | | | | | | | |
| P41,P42 | DW | DW | W | DW | DRK | | | | | | | |

SIGNAL FACE I.D.

All Heads L.E.D. * See Note 15

21,22 41,42 61,62

Direct Bury

P21,P22 P41,P42

♦ ►62

→61 **→**11

F F 11*

NC 55 (S. Alston Avenue)

| | | | | | | | | | DET | ECT | OR | PR | OGF | RAMI | MIN | G | | | | | |
|----------------------|--------------|----------|-------------------------|--------|----------|---------------|-----|------|--------------|------|--------------------|--------------------|----------|-------|-----------|--------|---------|-----------|--------|-----|----------|
| INDUCTIVE LOOPS | | | | | | | | | | | | ATTRIBUTES | | | | | | | | STA | TUS |
| | | | DIOT 50011 | | Ι. | _ | | IIM | ING | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | LOOPS | | ن |
| LOOP NO. | SIZE (ft) | TURNS | DIST. FROM STOPBAR (ft) | ZEX | EXISTING | NEMA PHASE | DEL | _AY | CAI (STRI | | FULL TIME DELAY | PEDESTRIAN CALL | RESERVED | COUNT | EXTENSION | TYPE 3 | CALLING | ALTERNATE | SYSTEM | NEW | EXISTING |
| 1 A | 6X40 | * | 0 | * | _ | 1 | 15 | SEC. | - | SEC. | - | - | _ | _ | Χ | - | Χ | ı | _ | * | - |
| IA | 0.40 | <u> </u> | | 不 | | 6 | - | SEC. | - | SEC. | - | _ | _ | - | Χ | - | Χ | - | - | * | - |
| 2A | 6×6 | * | 70 | * | - | 2 | - | SEC. | - | SEC. | _ | _ | - | - | Χ | _ | Χ | - | - | * | _ |
| 4 A | 6×40 | * | 0 | - | * | 4 | - | SEC. | - | SEC. | _ | _ | - | - | Χ | _ | Χ | - | - | * | _ |
| 4B | 6×40 | * | 0 | * | - | 4 | 15 | SEC. | | | _ | _ | - | - | Χ | _ | Χ | - | _ | * | _ |
| 6A | 6×6 | * | 70 | * | - | 6 | - | SEC. | - | SEC. | - | _ | - | - | Χ | - | Χ | - | - | * | - |
| PEDESTRIAN DETECTION | | | | | | | | | | | | | | | | | | | | | |
| P21,P22 | N/A | N/A | N/A | X | - | 2 | - | SEC. | - | SEC. | - | Χ | - | - | _ | - | - | - | - | Χ | _ |
| P41,P42 | N/A | N/A | N/A | Х | - | 4 | - | SEC. | - | SEC. | - | Χ | - | - | - | - | - | - | - | Χ | - |

PHASING DIAGRAM DETECTION LEGEND

DETECTED MOVEMENT

UNDETECTED MOVEMENT (OVERLAP) UNSIGNALIZED MOVEMENT

← − → PEDESTRIAN MOVEMENT

| 2033 EV PREEMPTI | ON |
|--------------------------------|------------------|
| FUNCTION | EVB (SECONDS) |
| DELAY BEFORE PREEMPT | 0 |
| MIN. PED. CLEAR BEFORE PREEMPT | * |
| MIN. GREEN BEFORE PREEMPT | 1 |
| CLEARANCE TIME | 2 |
| PREEMPT EXTEND** | 2.0 |

| | see | HIMIII | ng Chai | 11 10 |) //(III | rea | Clearai | ice |
|----|------|--------|---------|-------|----------|-------|----------|-----|
| ** | Prog | ram | Timing | on | Optico | al De | tector U | nit |

| TIMING CHART 2033 SOFTWARE w/2070 CONTROLLER | | | | | | | | | | | | |
|--|-----|----------|---------|------|-----|------|---------|------|--|--|--|--|
| PHASE | Ø1 | | Ø2 | | 04 | | Ø6 | | | | | |
| MINIMUM INITIAL * | 7 | SEC. | 10 | SEC. | 7 | SEC. | 10 | SEC. | | | | |
| VEHICLE EXTENSION * | 2.0 | SEC. | 3.0 | SEC. | 2.0 | SEC. | 3.0 | SEC. | | | | |
| YELLOW CHANGE INT. | 4.0 | SEC. | 4.0 | SEC. | 3.7 | SEC. | 4.0 | SEC. | | | | |
| RED CLEARANCE | 2.8 | SEC. | 1.9 | SEC. | 2.1 | SEC. | 1.9 | SEC. | | | | |
| MAXIMUM LIMIT * | 15 | SEC. | 50 | SEC. | 35 | SEC. | 50 | SEC. | | | | |
| RECALL POSITION | 101 | 1E | VEH. RE | CALL | NON | 1E | VEH. RE | CALL | | | | |
| VEHICLE CALL MEMORY | 707 | 1E | YELLOW | LOCK | NON | 1E | YELLOW | LOCK | | | | |
| DOUBLE ENTRY | OFF | : | OFF | = | OFF | : | OF | F | | | | |
| WALK * | 1 | SEC. | 4 | SEC. | 4 | SEC. | _ | SEC. | | | | |
| FLASHING DON'T WALK | I | SEC. | 4 | SEC. | 15 | SEC. | _ | SEC. | | | | |
| MIN PED CLEARANCE | ı | SEC. | 2 | SEC. | 8 | SEC. | _ | SEC. | | | | |
| TYPE 3 LIMIT | 1 | SEC. | _ | SEC. | - | SEC. | _ | SEC. | | | | |
| ALTERNATE EXTENSION | 1 | SEC. | _ | SEC. | - | SEC. | _ | SEC. | | | | |
| ADD PER VEHICLE * | _ | SEC. | _ | SEC. | _ | SEC. | _ | SEC. | | | | |
| MAXIMUM INITIAL * | 1 | SEC. | _ | SEC. | _ | SEC. | _ | SEC. | | | | |
| MAXIMUM GAP* | 2.0 | SEC. | 3.0 | SEC. | 2.0 | SEC. | 3.0 | SEC. | | | | |
| | | SEC. | _ | SEC. | _ | SEC. | | SEC. | | | | |
| REDUCE 0.1 SEC EVERY * | | <u> </u> | | | | | | | | | | |

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

1025 Wade Avenue Raleigh, NC 27605 Tel:919-789-9977 Fax:919-789-9591

750 N.Greenfield Pkwy, Garner, NC 27529 PREPARED BY: R Drayton REVIEWED BY:

NC 147 SB Ramps Division 5 Durham County PLAN DATE: September 2014 REVIEWED BY: J Hochanadel

MyPDI

2033 SOFTWARE w/ 2070 CONTROLLER LOOP & DETECTOR UNIT INSTALLATION CHART

| | | | | | | | TIMING | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 8 | | | | | | |
|----------|----------------------|--------------|-------------------------|-----|----------|---------------|--------|------|-------|------|---|---|--------------|--------------|--------------------|--------------------|----------|-------|-----------|--------|---------|-----------|----------|-----|----------|
| LOOP NO. | SIZE (ft) | TURNS | DIST. FROM STOPBAR (ft) | NEW | EXISTING | NEMA PHASE | DELAY | | DELAY | | | | CAI (STRI | RRY ETCH) | FULL TIME DELAY | PEDESTRIAN CALL | RESERVED | COUNT | EXTENSION | TYPE 3 | CALLING | ALTERNATE | SYSTEM L | NEW | EXISTING |
| 1 A | 6X40 | * | 0 | * | _ | 1 | 15 | SEC. | - | SEC. | _ | _ | - | - | Χ | - | Χ | - | - | * | - | | | | |
| IA | 6840 | * | | * | | 6 | - | SEC. | - | SEC. | _ | _ | - | _ | Χ | - | Χ | - | - | * | - | | | | |
| 2A | 6×6 | * | 70 | * | - | 2 | _ | SEC. | I | SEC. | _ | - | ı | ı | X | _ | X | - | _ | * | _ | | | | |
| 4A | 6×40 | * | 0 | - | * | 4 | - | SEC. | - | SEC. | _ | _ | ı | _ | Χ | _ | Χ | _ | - | * | - | | | | |
| 4B | 6×40 | * | 0 | * | - | 4 | 15 | SEC. | | | _ | - | ı | - | Χ | _ | Χ | _ | _ | * | - | | | | |
| 6A | 6×6 | * | 70 | * | - | 6 | _ | SEC. | 1 | SEC. | _ | 1 | ı | ı | Χ | _ | X | - | - | * | - | | | | |
| PEDES | PEDESTRIAN DETECTION | | | | | | | | | | | | | | | | | | | | | | | | |
| P21,P22 | N/A | N/A | N/A | Х | - | 2 | _ | SEC. | ı | SEC. | - | Χ | ı | 1 | - | - | I | - | - | Χ | _ | | | | |

35 Mph -2% Grade

NC 55 (S. Alston Avenue)

* Video Detection Zone

LEGEND

3 Phase

Fully Actuated

w/ EV Preemption

(Durham Signal System)

NOTES

2. Do not program signal for late night

by the Engineer. 3. Phase 1 may be lagged.

phases used.

pedestrian calls.

"Don't Walk" time.

conceptual only.

location details.

phase of construction.

required.

phase of construction.

1. Refer to "Road Standard Drawings NCDOT" dated January 2012, "Standard Specifications for

Roads and Structures" dated January 2012.

4. Reposition signal heads #21 & #22 during this

6. Program all timing information into phase banks

8. Omit "WALK" and flashing "DON'T WALK" with no

7. Set phase bank 3 maximum limit to 250 seconds for

9. Program pedestrian heads to countdown the flashing

system. Shown locations of optical detectors are

12. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing

13. Pedestrian Pedestals are conceptual and shown for reference only. See sheets P1-P3 for pushbutton

14. Contractor shall adjust video detection zones as

15. Reconnect and unbag signal head #11 during this

controller returns to normal operation based on vehicle

10. This intersection features an optical preemption

11. Upon completion of Emergency Vehicle Preemtion,

5. Set all detector units to presence mode.

1,2, and 3 unless otherwise noted.

values supersede these values.

flashing operation unless otherwise directed

PROJECT REFERENCE NO.

U-3308

Sig. 4.0

| | LLGLIID | |
|--|---|-------------------|
| PROPOSED | | <u>EXISTING</u> |
| \bigcirc | Traffic Signal Head | |
| | Modified Signal Head | N/A |
| \dashv | Sign | $\overline{}$ |
| ↓ | Pedestrian Signal Head With Push Button & Sign | • |
| $\bigcirc \hspace{-1em} \bigcirc \hspace{-1em} \bigcirc$ | Signal Pole with Guy | •_ |
| S | ignal Pole with Sidewalk Guy | |
| | Inductive Loop Detector | |
| | Controller & Cabinet | × |
| | Junction Box | |
| | 2-in Underground Conduit - | |
| N/A | Right of Way | |
| \longrightarrow | Directional Arrow | \longrightarrow |
| ⟨A⟩ Rig | ght Arrow "Only" Sign (R3-5R |) 🛆 |
| $\langle \mathbb{B} \rangle$ | No Right Turn Sign (R3-1) | B |
| $\langle \mathbb{C} \rangle$ | No Left Turn Sign (R3-2) | \bigcirc |
| | "YIELD" Sign (R1-2) | |
| | Work Area | N/A |
| • | Drums | N/A |
| | Optical Detector | • |
| | Video Detector | |
| | Video Detection Area 🗀 | |
| | Direct Bury | . – – – – – |
| ₩ | Type I Pushbutton Post | € |

Signal Upgrade - Temporary Design 5 (TMP Phase 3)

NC 55 (South Alston Avenue)

INIT. DATE

4/02/15 DATE SIG. INVENTORY NO. 05-1028T5