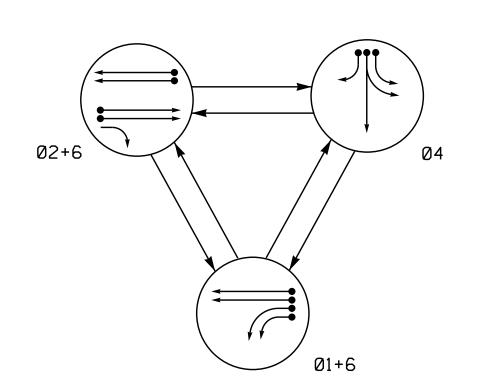
## PHASING DIAGRAM



| TABLE OF       | 0PE      | ERA <sup>-</sup> | ΤIO | N             |  |  |  |  |
|----------------|----------|------------------|-----|---------------|--|--|--|--|
|                | PHASE    |                  |     |               |  |  |  |  |
| SIGNAL<br>FACE | 01+6     | <b>∞</b> N+6     | 04  | 止しなのエ         |  |  |  |  |
| 11, 12         | <b>\</b> | #                | #   | <del>∢R</del> |  |  |  |  |
| 21, 22         | R        | G                | R   | Y             |  |  |  |  |
| 41, 42         | R        | R                | G   | R             |  |  |  |  |
| 61, 62         | G        | G                | R   | Y             |  |  |  |  |

| SIGNA | L FA        | CE                                     | I.D. |
|-------|-------------|--|------|
| A     | Heads ) 12" | R<br>Y<br>G<br>21, 2<br>41, 2<br>61, 6 | 12"  |

| OASIS 2070 LOOP & DETECTOR INSTALLATION CHART |              |                                     |                      |          |       |         |           |                 |                 |               |             | Т        |
|---|--------------|-------------------------------------|----------------------|----------|-------|---------|-----------|-----------------|-----------------|---------------|-------------|----------|
| II  | NDUCTI       | VE LO                               | DETECTOR PROGRAMMING |          |       |         |           |                 |                 |               |             |          |
| LOOP  | SIZE<br>(FT) | DISTANCE<br>FROM<br>STOPBAR<br>(FT) | TURNS                | NEW LOOP | PHASE | CALLING | EXTENSION | FULL TIME DELAY | STRETCH<br>TIME | DELAY<br>TIME | SYSTEM LOOP | NEW CARD |
| 1 A   | 6X60         | 0                                   | 2-4-2                | -        | 1     | Υ       | Υ         | -               | -               | 3             | -           | Υ        |
| 1B  | 6X60         | 0                                   | 2-4-2                | -        | 1     | Υ       | Υ         | -               | _               | -             | -           | Υ        |
| 2A,2B   | 6X6          | 300                                 | EXIST                | 1        | 2     | Υ       | Υ         | -               | 1.6             | -             | -           | Υ        |
| 2C, 2D  | 6X6          | 90                                  | EXIST                | -        | 2     | Υ       | Υ         | -               | -               | -             | -           | Υ        |
| 4A  | 6X60         | 0                                   | 2-4-2                | -        | 4     | Υ       | Υ         | -               | -               | -             | -           | Υ        |
| 4B  | 6X60         | 0                                   | 2-4-2                | -        | 4     | Υ       | Υ         | -               | -               | -             | -           | Υ        |
| 4C  | 6X60         | 0                                   | 2-4-2                | _        | 4     | Υ       | Υ         | -               | -               | 15            | -           | Υ        |
| 6A  | *            | 300                                 | *                    | -        | 6     | Υ       | Υ         | -               | 1.6             | -             | -           | Υ        |
| 6B,6C   | 6X6          | 90                                  | EXIST                | -        | 6     | Υ       | Υ         | -               | -               | -             | -           | Υ        |
| S1  | 6X6          | +270                                | EXIST                | -        | -     | -       | -         | -               | -               | -             | Υ           | Υ        |
| S2  | 6X6          | +270                                | EXIST                | -        | _     | -       | -         | -               | -               | -             | Υ           | Υ        |

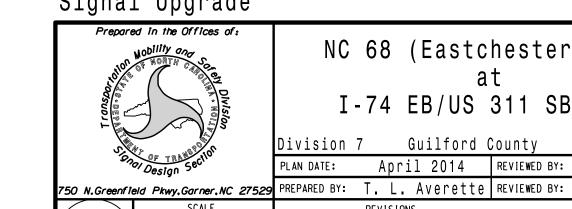
## 3 Phase Fully Actuated (High Point Signal System)

## NOTES

- 1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
- 2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- 3. Phase 1 may be lagged.
- 4. Set all detector units to presence mode.
- 5. In the event of loop replacement, refer to the current ITS and Signals Design Manual and submit a Plan of Record to the Signal Design Section.
- 6. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- 7. Pavement markings are existing.
- 8. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

| <u>LEGEND</u>  |                  |
|--|------------------|
| <u>PROPOSED</u> <u>E</u>   | <u>XISTING</u>   |
|  | <b></b>          |
| ◆ Modified Signal Head   | N/A              |
| _ Sign   |                  |
|  | <b>•</b>         |
| Signal Pole with Guy   |                  |
| Signal Pole with Sidewalk Guy  |                  |
| Inductive Loop Detector  |                  |
| Controller & Cabinet   | ر×_۲             |
| ☐ Junction Box   |                  |
| ——- 2-in Underground Conduit —   |                  |
| N/A Right of Way with Marker —   |                  |
| Directional Arrow  | <del></del>      |
| Metal Pole with Mastarm  |                  |
| Microwave Detector   |                  |
| Microwave Detection Zone   |                  |
| N/A Guardrail -  | <u> </u>         |
| $	ilde{\mathbb{A}}$ Right Arrow "ONLY" Sign (R3-5R)  | $\triangle$      |
| © Combined Through and Left Arrow Sign (R3-6L)   | $^{lack}$        |
|  | $\bigcirc$       |
| ⑦ Street Name Sign (D3-1)  | $\bigcirc$       |
| ♠ No Right Turn Sign (R3-1)  | Ē                |
| <pre>(F) "STOP HERE ON RED" Sign (R10-6) (G) No Left Turn Sign (R3-2) (H) "STOP" Sign (R1-1)</pre> | E<br>E<br>G<br>A |
| $\langle \widehat{G} \rangle$ No Left Turn Sign (R3-2)   | (G)              |
| <u> </u>   | $\sim$           |

Signal Upgrade



NC 68 (Eastchester Drive) at I-74 EB/US 311 SB Ramps Division 7 Guilford County April 2014 REVIEWED BY:

REVISIONS

SEAL 026486 SIG. INVENTORY NO.

INIT. DATE

|                                 |  |                                  |                  |           |                        |          |                      |                      |         |   |                | 32 070        | +210   EXIST   - |     |        |
|---------------------------------|--|----------------------------------|------------------|-----------|------------------------|----------|----------------------|----------------------|---------|---|----------------|---------------|------------------|-----|--------|
| DUACTA                          | IC DIACDAM D                                       | FTFCTTON                         | LECEND           |           |                        |          |                      |                      |         |   |                | * Microwave D | etection Zone    |     |        |
| <u>FRASIN</u> <b>←</b> >        | NG DIAGRAM DETECTED METECTED UNDETECTED UNSIGNALIZ | OVEMENT<br>MOVEMENT<br>ED MOVEME | OVERLAP)         | )         |                        |          |                      | 1 SB Ramp            |         | //                                      |                |               |                  |     |        |
| Tir                             | mberlake Av  | /e.                              |                  |           |                        |          | M                    | I-74 EB/US 311       | 43° 6'- |   |                |               |                  |     |        |
| (H)                             |  | R/W∙ —                           |                  |           | Metal<br>- — — — — — — | Pole #4  | ©.//                 |                      |         | 45                                      | 5 MPH 0% Grado |               | Microwave Detec  | tor |        |
|                                 | //   | ``\\                             | N                | C 68 (Eas | stchester Drive)       |          |                      | / (//                |         |   |                |               |                  |     | _      |
| ===/- <sup>*</sup><br>—<br>———— |  | ~ <del>==</del> =                | _                |           | S1)                    |          | 62<br>62<br>61<br>12 |                      |         | <b> </b>                                |                |               |                  |     | •      |
|                                 |  |                                  | <i></i> <b>♪</b> |           |                        |          | 11                   | `                    |         | - [==================================== | <u>(A)</u>     | <u> </u>      |                  |     | _      |
| _ @ @ @                         |  |                                  |                  | <b>→</b>  |                        |          |                      | · 2                  | 1       |   | — — —          | _/            |                  |     | _<br>_ |
| = 3,                            | <br>/===   |                                  | <br>======       |           |                        |          |                      | 42,41                |         | NC 68 (Eastches                         | ter Drive)     |               |                  |     | _      |
|                                 | ( <i>f</i><br>                                     |                                  | •                | 45 MPH    | -1% Grade              |          |                      |                      |         |   |                |               |                  |     |        |
|                                 | R/W—-  |                                  |                  |           |                        |          |                      |                      |         | ─MetalPole #6                           |                |               |                  |     |        |
| ii                              |  |                                  |                  |           |                        |          | 1/                   |                      | \       | etalPole #5                             |                |               |                  |     |        |
|                                 |  |                                  |                  |           |                        | \        | 1                    |                      |         |   |                |               |                  |     |        |
| ΛΔΩΤΩ                           | 3 2070 1   | TMTNG                            | CHAR             | т         | ٦                      |          |                      | Rar                  |         |   |                |               |                  |     |        |
| 0,010                           |  |                                  |                  | 1         | -                      |          |                      | SB                   |         |   |                |               |                  |     |        |
| FEATURE .                       | 1  | 2                                | 4<br>4           | 6         | 1                      |          |                      | 311                  |         |   |                |               |                  |     |        |
| in Green 1 *                    | 7  | 12                               | 7                | 12        | 1                      | <br>     |                      | ၂၂၂၂                 |         |   |                |               |                  |     |        |
| tension 1 *                     | 3.0  | 2.0                              | 1.0              | 2.0       | 1                      | <br>     |                      | <br> -<br>  <br> B/U |         |   |                |               |                  |     |        |
| ax Green 1 *                    | 40   | 60                               | 25               | 60        |                        | <u>*</u> |                      |                      |         |   |                |               |                  |     |        |
| ellow Clearance                 | 3.0  | 4.6                              | 3.4              | 4.5       |                        | B/       | <br>                 | 72-                  |         |   |                |               |                  |     |        |
|                                 | l  |                                  |                  | I         | I                      |          |                      |                      |         |   |                |               |                  |     |        |

ON \* 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

3.5

2.0

1.0

2.0

SOFT RECALL

YELLOW

Red Clearance

Seconds Per Actuation ' Max Variable Initial \* Time Before Reduction

Time To Reduce \*

Vehicle Call Memory

Minimum Gap

Recall Mode\*\*

Red Revert

2.3

2.0

1.6

2.0

-

-

SOFT RECALL

YELLOW

\*\* May be changed to Min Recall by Time of Day at discretion of City Traffic Engineer.