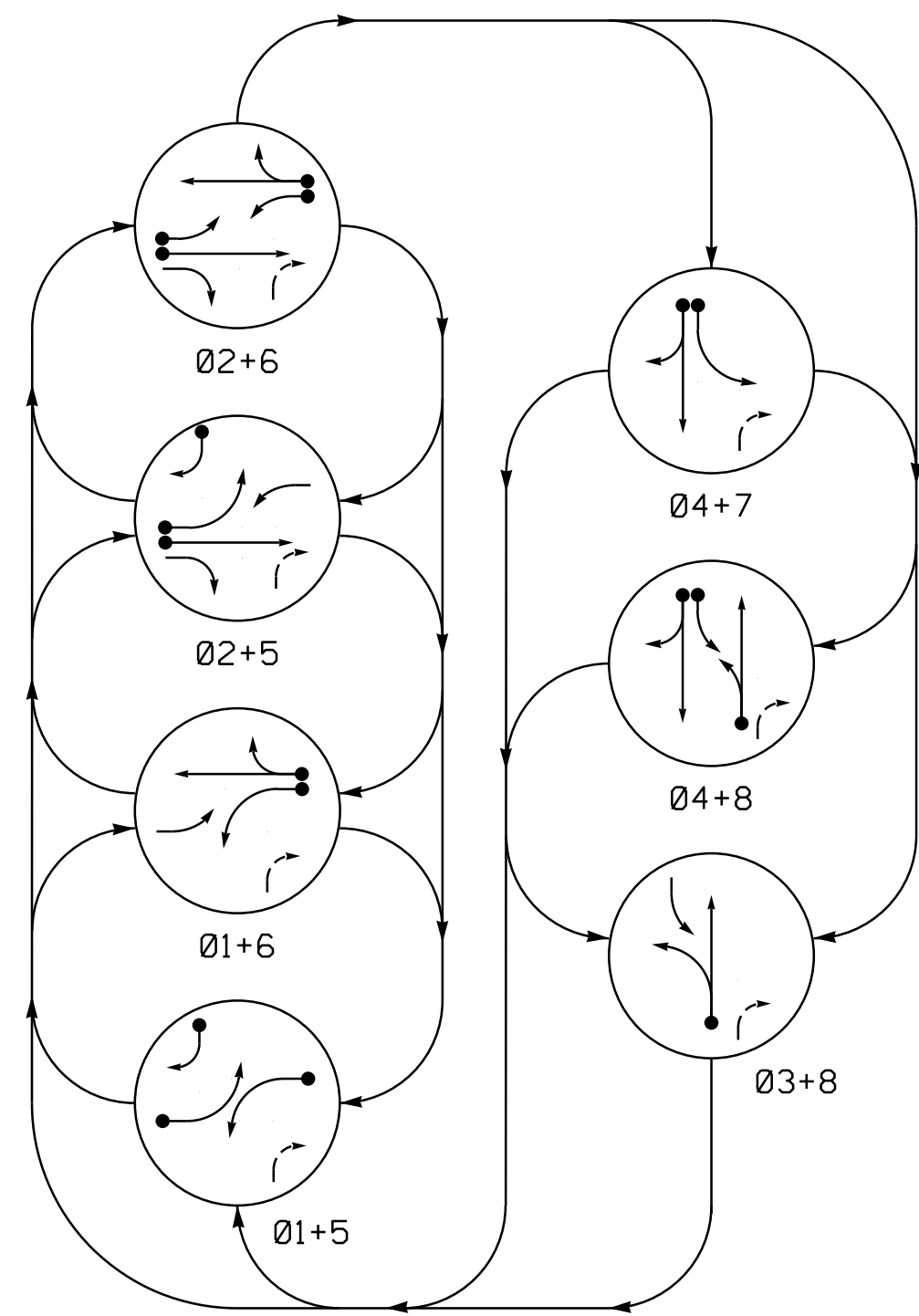


**PHASING DIAGRAM**



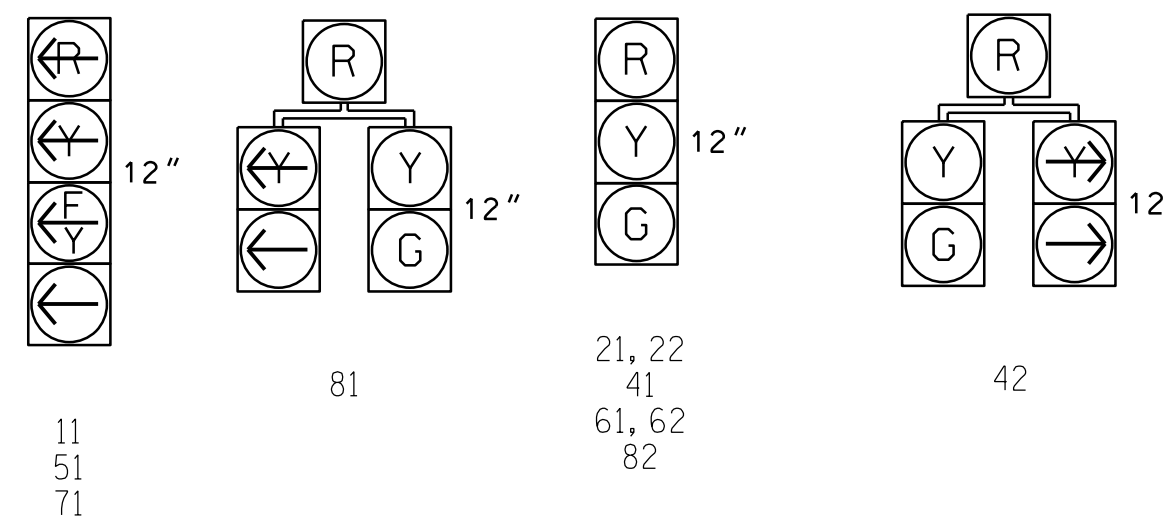
**PHASING DIAGRAM DETECTION LEGEND**

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

| SIGNAL FACE | PHASE   |         |         |         |         |         |         |       |
|-------------|---------|---------|---------|---------|---------|---------|---------|-------|
|             | Ø 1 + 5 | Ø 1 + 6 | Ø 2 + 5 | Ø 2 + 6 | Ø 4 + 7 | Ø 4 + 8 | Ø 3 + 8 | FLASH |
| 11          | ←       | ←       | ←       | ←       | ←       | ←       | ←       | ←     |
| 21, 22      | R       | R       | G       | G       | R       | R       | R       | Y     |
| 41          | R       | R       | R       | R       | G       | G       | R       | R     |
| 42          | R       | R       | ←       | ←       | R       | G       | R       | R     |
| 51          | ←       | ←       | ←       | ←       | R       | R       | R       | Y     |
| 61, 62      | R       | G       | R       | G       | R       | R       | R       | Y     |
| 71          | ←       | ←       | ←       | ←       | ←       | ←       | ←       | ←     |
| 81          | R       | R       | R       | R       | R       | G       | G       | R     |
| 82          | R       | R       | R       | R       | R       | G       | G       | R     |

**SIGNAL FACE I.D.**

All Heads L.E.D.



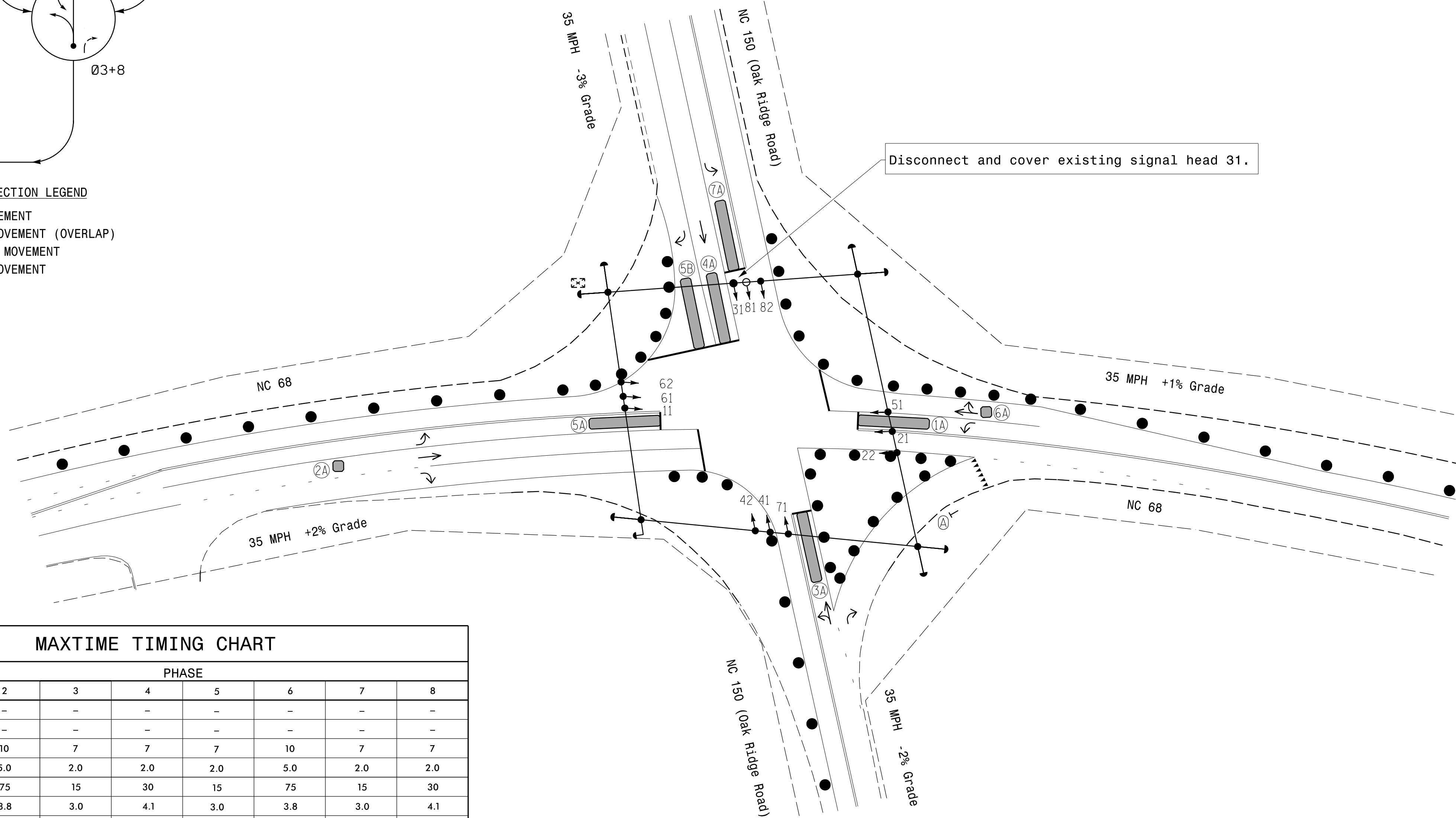
| MAXTIME DETECTOR INSTALLATION CHART |           |                            |       |             |            |            |             |        |               |      |          |
|-------------------------------------|-----------|----------------------------|-------|-------------|------------|------------|-------------|--------|---------------|------|----------|
| DETECTOR                            |           |                            |       | PROGRAMMING |            |            |             |        |               |      |          |
| LOOP                                | SIZE (FT) | DISTANCE FROM STOPBAR (FT) | TURNS | NEW LOOP    | CALL PHASE | DELAY TIME | EXTEND TIME | EXTEND | ADDED INITIAL | CALL | NEW CARD |
| 1A                                  | 6X40      | 0                          | *     | *           | 1          | 15         | -           | X      | -             | X    | *        |
| 2A                                  | 6X6       | 200                        | *     | *           | 6          | 3          | -           | X      | -             | X    | *        |
| 3A                                  | 6X40      | 0                          | *     | *           | 3          | 15         | -           | X      | -             | X    | *        |
| 4A                                  | 6X40      | 0                          | *     | *           | 8          | 3          | -           | X      | -             | X    | *        |
| 5A                                  | 6X40      | 0                          | *     | *           | 4          | -          | -           | X      | -             | X    | *        |
| 5B                                  | 6X40      | 0                          | *     | *           | 5          | 15         | -           | X      | -             | X    | *        |
| 6A                                  | 6X6       | 200                        | *     | *           | 2          | 3          | -           | X      | -             | X    | *        |
| 7A                                  | 6X40      | 0                          | *     | *           | 7          | 15         | -           | X      | -             | X    | *        |
|                                     |           |                            |       |             | 4          | 3          | -           | X      | -             | X    | *        |

\* Video Detection Zone

**7 Phase Fully Actuated (Isolated)**

**NOTES**

- Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- Omit phase 7 during phase 8 on.
- Phase 3 and phase 7 shall not operate simultaneously.
- Disconnect and cover existing signal head 31.
- Reposition existing signal heads numbered 11, 21, 22, 51, 61, 62, and 82.
- Set all detector units to presence mode.
- This intersection uses video detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.



Disconnect and cover existing signal head 31.

**LEGEND**

- |  |                                                         |  |                              |
|--|---------------------------------------------------------|--|------------------------------|
|  | PROPOSED Traffic Signal Head                            |  | EXISTING Traffic Signal Head |
|  | PROPOSED Modified Signal Head                           |  | EXISTING N/A                 |
|  | PROPOSED Sign                                           |  | EXISTING N/A                 |
|  | PROPOSED Pedestrian Signal Head With Push Button & Sign |  | EXISTING N/A                 |
|  | PROPOSED Signal Pole with Guy                           |  | EXISTING N/A                 |
|  | PROPOSED Signal Pole with Sidewalk Guy                  |  | EXISTING N/A                 |
|  | PROPOSED Inductive Loop Detector Controller & Cabinet   |  | EXISTING N/A                 |
|  | PROPOSED Junction Box                                   |  | EXISTING N/A                 |
|  | PROPOSED 2-in Underground Conduit                       |  | EXISTING N/A                 |
|  | PROPOSED Right of Way                                   |  | EXISTING N/A                 |
|  | PROPOSED Directional Arrow                              |  | EXISTING N/A                 |
|  | PROPOSED Construction Zone Drum                         |  | EXISTING N/A                 |
|  | PROPOSED Video Detection Zone                           |  | EXISTING N/A                 |
|  | PROPOSED Construction Zone                              |  | EXISTING N/A                 |
|  | PROPOSED "YIELD" Sign (R1-2)                            |  | EXISTING N/A                 |

| MAXTIME TIMING CHART    |       |            |     |     |     |            |     |     |
|-------------------------|-------|------------|-----|-----|-----|------------|-----|-----|
| FEATURE                 | PHASE |            |     |     |     |            |     |     |
|                         | 1     | 2          | 3   | 4   | 5   | 6          | 7   | 8   |
| Walk *                  | -     | -          | -   | -   | -   | -          | -   | -   |
| Ped Clear *             | -     | -          | -   | -   | -   | -          | -   | -   |
| Min Green               | 7     | 10         | 7   | 7   | 7   | 10         | 7   | 7   |
| Passage *               | 2.0   | 5.0        | 2.0 | 2.0 | 2.0 | 5.0        | 2.0 | 2.0 |
| Max I *                 | 15    | 75         | 15  | 30  | 15  | 75         | 15  | 30  |
| Yellow Change           | 3.0   | 3.8        | 3.0 | 4.1 | 3.0 | 3.8        | 3.0 | 4.1 |
| Red Clear               | 2.6   | 1.8        | 2.9 | 2.2 | 2.4 | 1.8        | 3.3 | 2.2 |
| Added Initial *         | -     | 2.5        | -   | -   | -   | 2.5        | -   | -   |
| Maximum Initial *       | -     | 24         | -   | -   | -   | 24         | -   | -   |
| Time Before Reduction * | -     | 15         | -   | -   | -   | 15         | -   | -   |
| Time To Reduce *        | -     | 30         | -   | -   | -   | 30         | -   | -   |
| Minimum Gap             | -     | 3.0        | -   | -   | -   | 3.0        | -   | -   |
| Advance Walk            | -     | -          | -   | -   | -   | -          | -   | -   |
| Non Lock Detector       | X     | -          | X   | X   | X   | -          | X   | X   |
| Vehicle Recall          | -     | MIN RECALL | -   | -   | -   | MIN RECALL | -   | -   |
| Dual Entry              | -     | -          | -   | X   | -   | -          | -   | X   |

\* 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.

**Signal Upgrade - Temporary Design 4 (TMP Phase 2, Step 5)**

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

|  |                                                                                        |                                                       |  |
|--|----------------------------------------------------------------------------------------|-------------------------------------------------------|--|
|  | <b>NC 68 at NC 150 (Oak Ridge Road)</b>                                                |                                                       |  |
|  | Division 7 Guilford County Oak Ridge<br>PLAN DATE: April 2023<br>PREPARED BY: JA Wendt | REVIEWED BY: TS Popelka<br>RKA PROJ. NO.: 18062 (040) |  |

Infrastructure Consulting Services, Inc.  
**RKA**  
 RAMEY KEMP ASSOCIATES  
 5808 Farrington Place  
 Raleigh, North Carolina 27609  
 Phone: 919-872-5115  
 NC License No. F-1489  
 www.ramkemp.com

SIG. INVENTORY NO. 07-0883T4