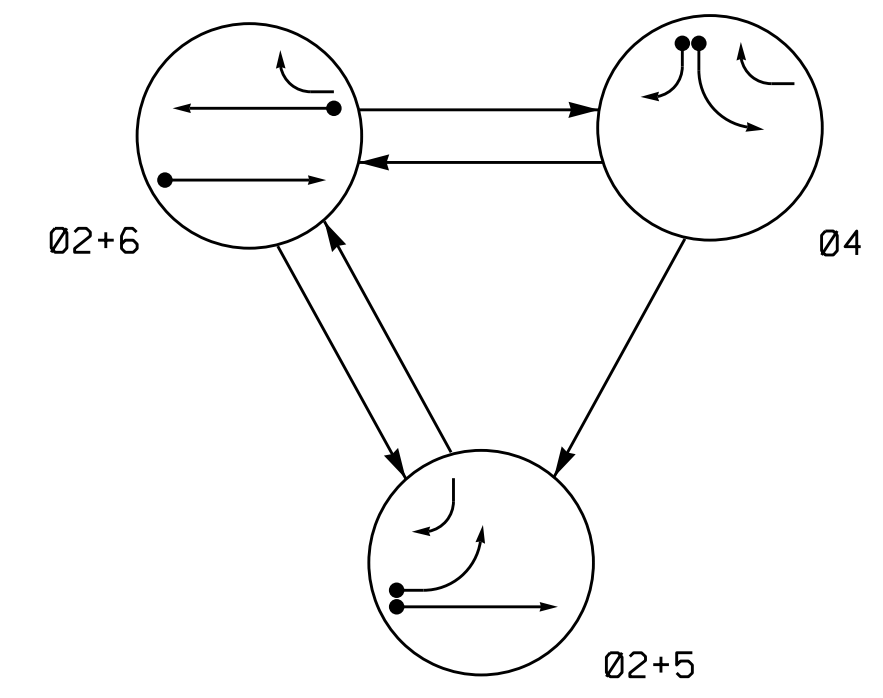


PHASING DIAGRAM

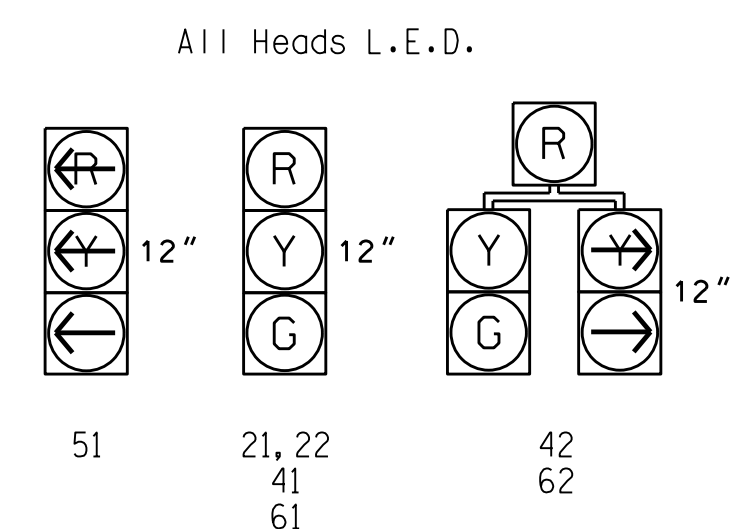


**PHASING DIAGRAM DETECTION LEGEND**  
 ● ← DETECTED MOVEMENT  
 ○ ← UNDETECTED MOVEMENT (OVERLAP)  
 - - ← UNSIGNALIZED MOVEMENT  
 - - - - ← PEDESTRIAN MOVEMENT

TABLE OF OPERATION

| SIGNAL FACE | PHASE |      |    |      |
|-------------|-------|------|----|------|
|             | 02+5  | 02+6 | 04 | 02+5 |
| 21, 22      | G     | G    | R  | Y    |
| 41          | R     | R    | G  | R    |
| 42          | R     | R    | G  | R    |
| 51          | -     | -    | -  | -    |
| 61          | R     | G    | R  | Y    |
| 62          | R     | G    | R  | Y    |

SIGNAL FACE I.D.



OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

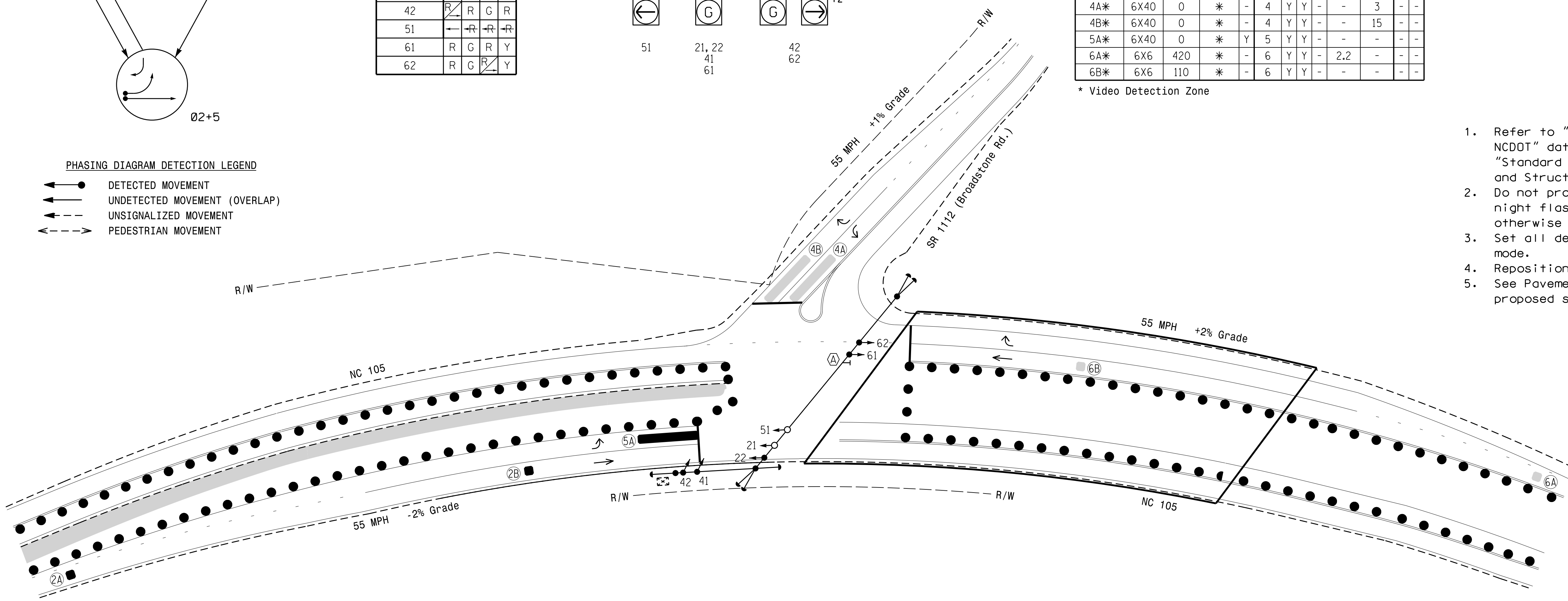
| LOOP | SIZE (FT) | DISTANCE FROM STOPBAR (FT) | TURNS | NEW LOOP | DETECTOR PROGRAMMING |         |           |                 | SYSTEM LOOP | NEW CARD |   |
|------|-----------|----------------------------|-------|----------|----------------------|---------|-----------|-----------------|-------------|----------|---|
|      |           |                            |       |          | PHASE                | CALLING | EXTENSION | FULL TIME DELAY |             |          |   |
| 2A*  | 6X6       | 420                        | *     | Y        | 2                    | Y       | Y         | -               | 2.2         | -        | - |
| 2B*  | 6X6       | 110                        | *     | Y        | 2                    | Y       | Y         | -               | -           | -        | - |
| 4A*  | 6X40      | 0                          | *     | -        | 4                    | Y       | Y         | -               | -           | 3        | - |
| 4B*  | 6X40      | 0                          | *     | -        | 4                    | Y       | Y         | -               | -           | 15       | - |
| 5A*  | 6X40      | 0                          | *     | Y        | 5                    | Y       | Y         | -               | -           | -        | - |
| 6A*  | 6X6       | 420                        | *     | -        | 6                    | Y       | Y         | -               | 2.2         | -        | - |
| 6B*  | 6X6       | 110                        | *     | -        | 6                    | Y       | Y         | -               | -           | -        | - |

\* Video Detection Zone

3 Phase  
Fully Actuated  
Isolated

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Set all detector units to presence mode.
4. Reposition all existing signal heads.
5. See Pavement Marking Plans for proposed stop bar locations.

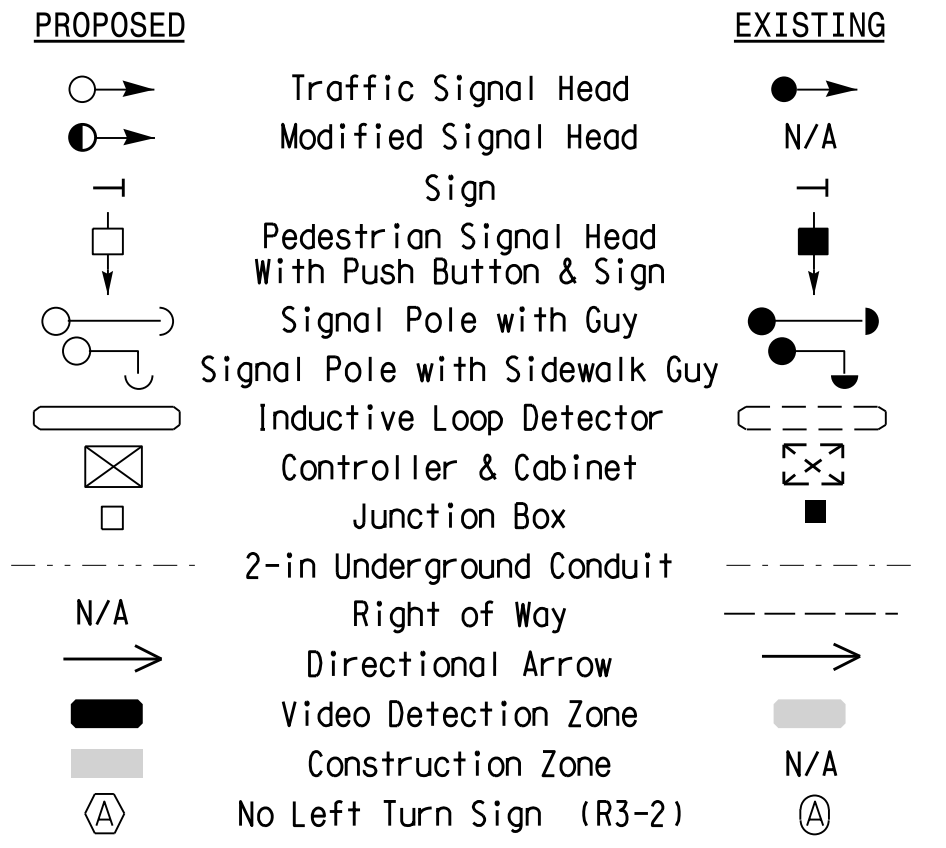


OASIS 2070 TIMING CHART

| FEATURE                 | PHASE      |     |     |            |
|-------------------------|------------|-----|-----|------------|
|                         | 2          | 4   | 5   | 6          |
| Min Green 1 *           | 14         | 7   | 7   | 14         |
| Extension 1 *           | 2.0        | 2.0 | 2.0 | 2.0        |
| Max Green 1 *           | 60         | 25  | 15  | 60         |
| Yellow Clearance        | 5.4        | 3.0 | 3.0 | 5.4        |
| Red Clearance           | 1.7        | 3.3 | 3.5 | 1.7        |
| Red Revert              | 2.0        | 2.0 | 2.0 | 2.0        |
| Walk 1 *                | -          | -   | -   | -          |
| Don't Walk 1            | -          | -   | -   | -          |
| Seconds Per Actuation * | -          | -   | -   | -          |
| Max Variable Initial *  | -          | -   | -   | -          |
| Time Before Reduction * | -          | -   | -   | -          |
| Time To Reduce *        | -          | -   | -   | -          |
| Minimum Gap             | -          | -   | -   | -          |
| Recall Mode             | MIN RECALL | -   | -   | MIN RECALL |
| Vehicle Call Memory     | YELLOW     | -   | -   | YELLOW     |
| Dual Entry              | -          | -   | -   | -          |
| Simultaneous Gap        | ON         | ON  | ON  | 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 be lower than 4 seconds.

LEGEND



Signal Upgrade - Temporary Design - Phase IV

Prepared in the Offices of:  
 Transportation Mobility and Safety Division  
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
 Signal Design Section

750 N. Greenfield Pkwy, Garner, NC 27529

NC 105 at SR 1112 (Broadstone Rd.)  
 Division 11 Watauga County Boone

PLAN DATE: April 2019 REVIEWED BY: T.J. Williams  
 PREPARED BY: R.N. Zinser REVIEWED BY:

REVISIONS: INIT. DATE

SCALE: 1" = 40'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL: RICHARD N. ZINSER, PROFESSIONAL ENGINEER, No. 043914

DATE: 5/16/2019

SIG. INVENTORY NO. II-1054T5

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