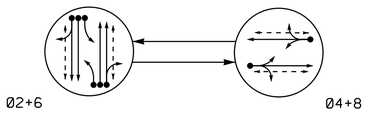
| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| U-2524D | Sig. 5.0 |

## PHASING DIAGRAM




PHASING DIAGRAM DETECTION LEGEND

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

## TABLE OF OPERATION

| SIGNAL FACE | PHASE 02+6 | PHASE 04+8 | FLASH |
|---|---|---|---|
| 21 | ~~F Y~~ | ~~R~~ | ~~Y~~ |
| 22, 23 | G | R | Y |
| 41, 42 | R | G | R |
| 61 | ~~F Y~~ | ~~R~~ | ~~Y~~ |
| 62, 63 | G | R | Y |
| 81, 82 | R | G | R |
| P21, P22 | W | DW | DRK |
| P41, P42 | DW | W | DRK |
| P61, P62 | W | DW | DRK |
| P81, P82 | DW | W | DRK |

W - Walk
DW - Don't Walk
DRK - Dark

## LOOP & DETECTOR UNIT INSTALLATION CHART

NAZTEC APOGEE SOFTWARE 2070 CONTROLLER

| INDUCTIVE LOOPS | | | | | DETECTOR PROGRAMMING | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOOP | SIZE (FT) | DISTANCE FROM STOPBAR (FT) | TURNS | NEW LOOP | PHASE | SWITCH (PHASE) | DELAY TIME | STRETCH TIME | CALLING | EXTENSION | ADDED INIT. | SYSTEM LOOP | NEW CARD |
| 2A, 2B | 6X6 | 70 | 4 | X | 2 | - | - | - | X | X | - | - | - |
| 2C | 6X40 | 0 | 2-4-2 | X | 2 | - | - | - | X | X | - | - | - |
| 4A | 6X40 | 0 | 2-4-2 | X | 4 | - | 5 | - | X | X | - | - | - |
| 6A, 6B | 6X6 | 70 | 4 | X | 6 | - | - | - | X | X | - | - | - |
| 6C | 6X40 | 0 | 2-4-2 | X | 6 | - | - | - | X | X | - | - | - |
| 8A | 6X40 | 0 | 2-4-2 | X | 8 | - | 5 | - | X | X | - | - | - |

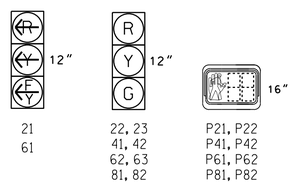
2 Phase
Fully Actuated
(Greensboro Signal System)

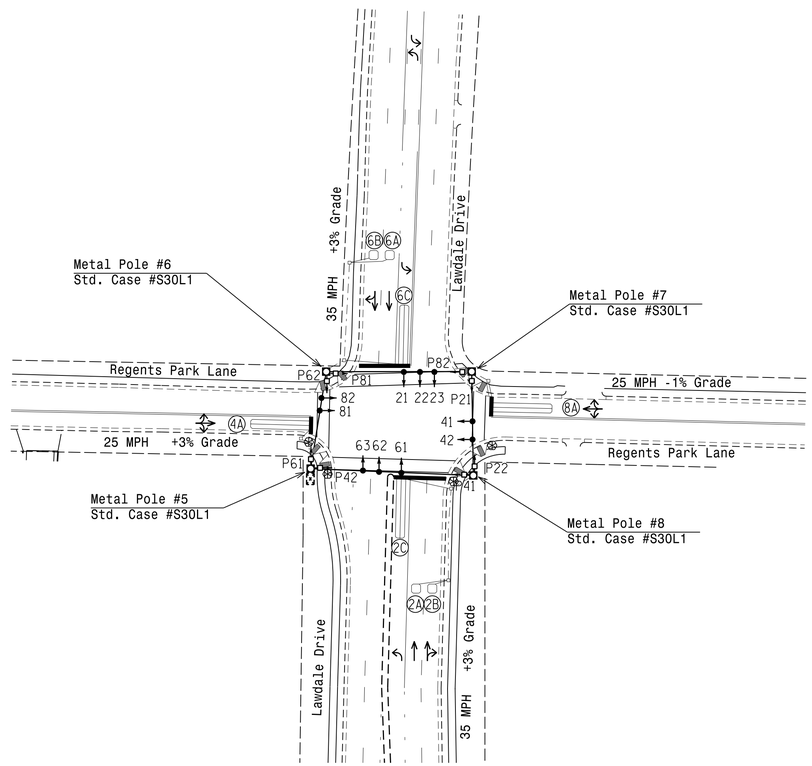
## NOTES

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. Set all detector units to presence mode.
4. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
5. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
6. Pedestrian pedestals are conceptual and shown for reference only. See sheets P1-P3 for pushbutton location details.
7. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

## SIGNAL FACE I.D.

All Heads L.E.D.




## NAZTEC APOGEE 2070 TIMING CHART

| FEATURE | PHASE 2 | PHASE 4 | PHASE 6 | PHASE 8 |
|---|---|---|---|---|
| Min Green * | 10 | 7 | 10 | 7 |
| Gap, Extension * | 3.0 | 2.0 | 3.0 | 2.0 |
| Maximum Green 1 * | 50 | 25 | 50 | 25 |
| Maximum Green 2 * | - | - | - | - |
| Yellow Clear | 4.0 | 3.1 | 4.0 | 3.2 |
| Red Clear | 1.7 | 3.0 | 1.7 | 3.0 |
| Walk * | 7 | 7 | 7 | 7 |
| Pedestrian Clear | 7 | 21 | 8 | 20 |
| Added Initial * | - | - | - | - |
| Maximum Initial * | - | - | - | - |
| Time Before Reduction * | - | - | - | - |
| Time To Reduce * | - | - | - | - |
| Minimum Gap | - | - | - | - |
| Recall Mode | MIN RECALL | - | MIN RECALL | - |
| Lock Calls | YES | NO | YES | NO |
| Dual Entry | - | ON | - | ON |
| 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

| PROPOSED | | EXISTING |
|---|---|---|
| | Traffic Signal Head | |
| | Modified Signal Head | N/A |
| | Sign | |
| | Pedestrian Signal Head With Push Button & Sign | |
| | Signal Pole with Guy | |
| | Signal Pole with Sidewalk Guy | |
| | Inductive Loop Detector | |
| | Controller & Cabinet | |
| | Junction Box | |
| | 2-in Underground Conduit | |
| N/A | Right of Way | |
| | Directional Arrow | |
| | Metal Strain Pole | |
| | Type I Pushbutton Post | |
| | Type II Signal Pedestal | |
| N/A | Curb Ramp | |

Signal Upgrade - Final Design

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**

Prepared in the Offices of:
Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

# Lawndale Drive at Regents Park Lane

Division 7 Guilford County Greensboro

PLAN DATE: March 2016 REVIEWED BY:
PREPARED BY: I. O. Umozurike REVIEWED BY:

SCALE 0 50 1"=50'

| REVISIONS | INIT. | DATE |
|---|---|---|
| | | |

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 026486 ENGINEER ROBERT J. ZIEMBA

DocuSigned by:
SIGNATURE 4/19/2016 DATE

SIG. INVENTORY NO. GBO-041

27-APR-2016 14:31
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