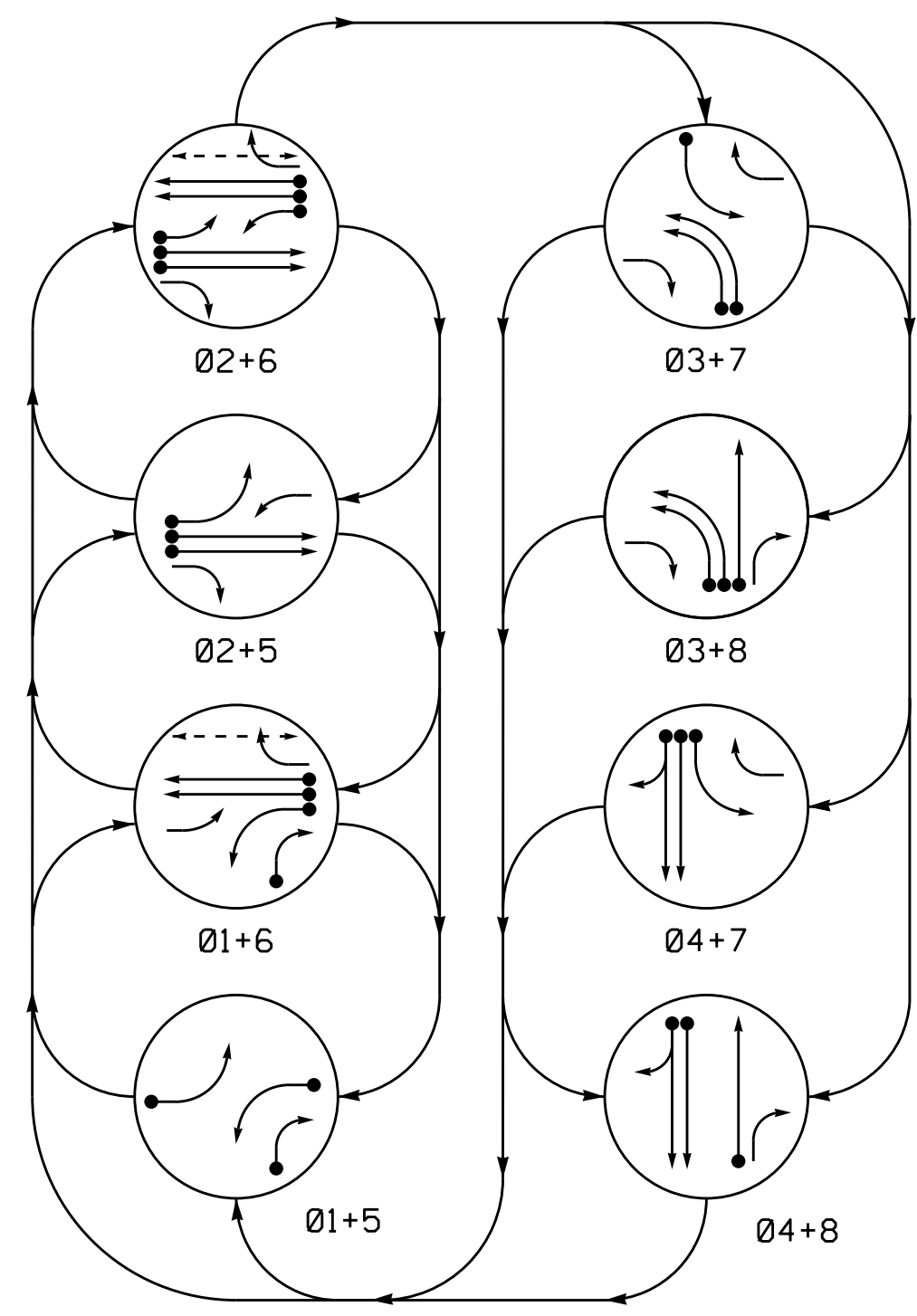


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

- ←●→ DETECTED MOVEMENT
- ←○→ UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- ←- - -> PEDESTRIAN MOVEMENT

TABLE OF OPERATION

| SIGNAL FACE | PHASE | | | | | | | | FLASH |
|-------------|-------|------|------|------|------|------|------|------|-------|
| | 01+5 | 01+6 | 02+5 | 02+6 | 03+7 | 03+8 | 04+7 | 04+8 | |
| 11 | --- | --- | F | F | --- | --- | --- | --- | --- |
| 21 | R | R | G | G | R | R | R | R | Y |
| 22 | R | R | G | G | R | R | R | R | Y |
| 31, 32 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 41, 42 | R | R | R | R | R | R | G | G | R |
| 51 | --- | --- | F | F | --- | --- | --- | --- | --- |
| 61 | R | G | R | G | R | R | R | R | Y |
| 62 | R | G | R | G | R | R | R | R | Y |
| 71 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 81 | R | R | R | R | R | G | G | R | --- |
| 82 | R | R | R | R | R | G | G | R | --- |
| P61, P62 | DW | W | DW | W | DW | DW | DW | DRK | --- |

LOOP & DETECTOR UNIT INSTALLATION CHART
SE-PAC 2070 CONTROLLER WITH 170 CABINET

| LOOP / ZONE NO. | SIZE (ft) | TURNS | DIST. FROM STOPBAR (ft) | NEW | EXISTING | DETECTOR PROGRAMMING | | | | | | | | | | | | | STATUS | | | | |
|-----------------|-----------|-------|-------------------------|-----|----------|----------------------|---------|------------------|----------------|------------|--------|--------|--------|--------------|-----------------|-----|--------|--------------|--------|----------|---|---|---|
| | | | | | | ASSIGNED PHASE | TIMING | | OPERATION MODE | | | | | | | | SWITCH | SYSTEM LOOPS | NEW | EXISTING | | | |
| | | | | | | | DELAY | EXTEND (STRETCH) | VEHICLE | PEDESTRIAN | 1 CALL | STOP A | STOP B | PROTECT LEFT | PROTECT THROUGH | AND | | | | | | | |
| 1A* | 6X40 | * | 0 | - | X | 1 | 15 SEC. | - SEC. | X | - | - | - | - | - | - | - | - | - | - | - | - | - | X |
| 1B* | 6X60 | * | 0 | X | - | 1 | 15 SEC. | - SEC. | X | - | - | - | - | - | - | - | - | - | - | - | - | - | X |
| 2A* | 6X6 | * | 300 | X | - | 2 | - SEC. | - SEC. | X | - | - | - | - | - | - | - | - | - | - | - | - | - | X |
| 2B* | 6X6 | * | 300 | X | - | 2 | - SEC. | - SEC. | X | - | - | - | - | - | - | - | - | - | - | - | - | - | X |
| 3A* | 6X60 | * | 0 | X | - | 3 | - SEC. | - SEC. | X | - | - | - | - | - | - | - | - | - | - | - | - | - | X |
| 3B* | 6X60 | * | 0 | X | - | 3 | - SEC. | - SEC. | X | - | - | - | - | - | - | - | - | - | - | - | - | - | X |
| 4A | 6X60 | 2-4-2 | 0 | X | - | 4 | - SEC. | - SEC. | X | - | - | - | - | - | - | - | - | - | - | - | - | - | X |
| 4B | 6X60 | 2-4-2 | 0 | X | - | 4 | 10 SEC. | - SEC. | X | - | - | - | - | - | - | - | - | - | - | - | - | - | X |
| 5A* | 6X60 | * | 0 | X | - | 5 | 15 SEC. | - SEC. | X | - | - | - | - | - | - | - | - | - | - | - | - | - | X |
| 6A* | 6X6 | * | 300 | X | - | 6 | - SEC. | - SEC. | X | - | - | - | - | - | - | - | - | - | - | - | - | - | X |
| 6B* | 6X6 | * | 300 | X | - | 6 | - SEC. | - SEC. | X | - | - | - | - | - | - | - | - | - | - | - | - | - | X |
| 7A | 6X60 | 2-4-2 | 0 | X | - | 7 | 3 SEC. | - SEC. | X | - | - | - | - | - | - | - | - | - | - | - | - | - | X |
| 8A* | 6X60 | * | 0 | X | - | 8 | - SEC. | - SEC. | X | - | - | - | - | - | - | - | - | - | - | - | - | - | X |

* Video detection zone.

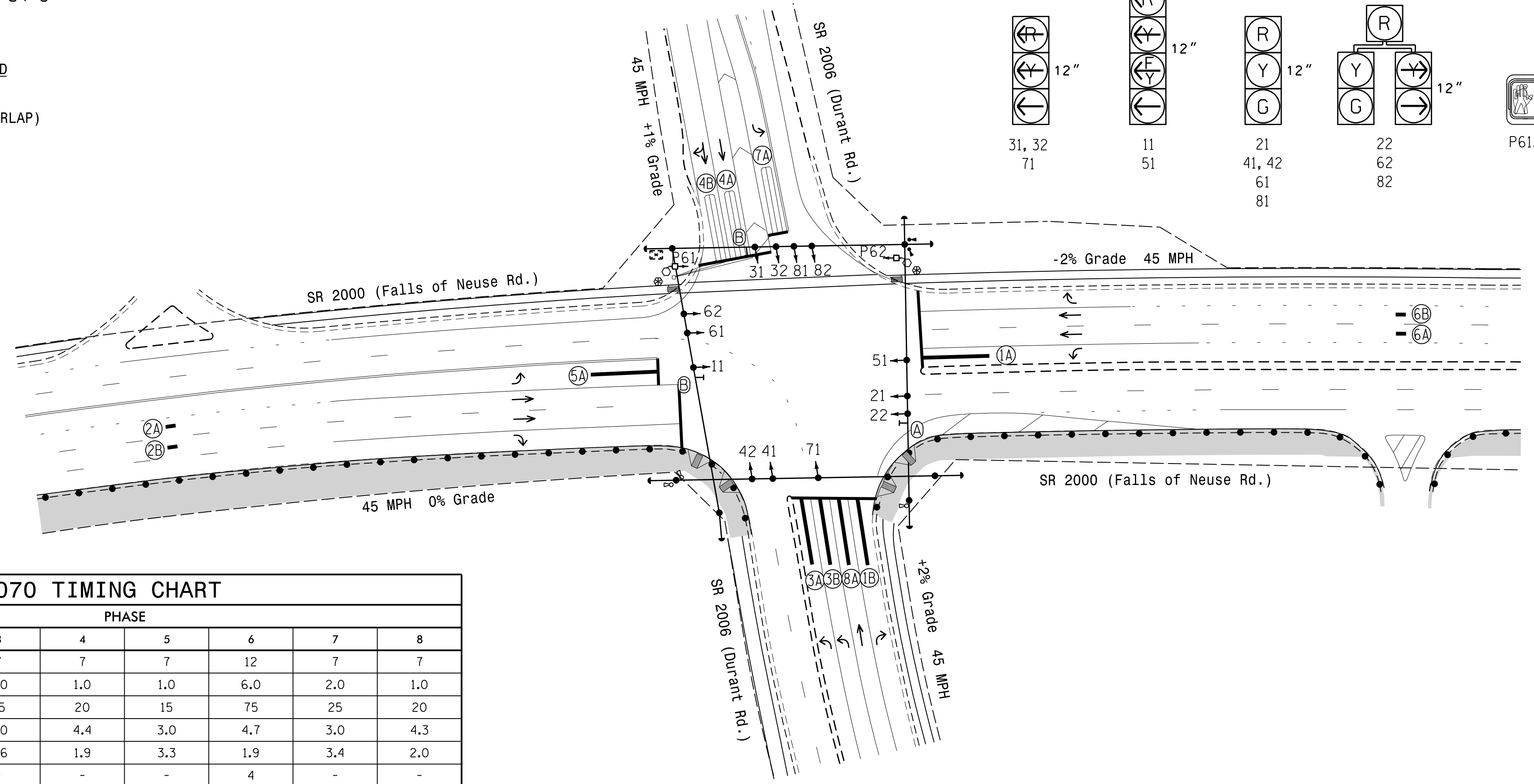
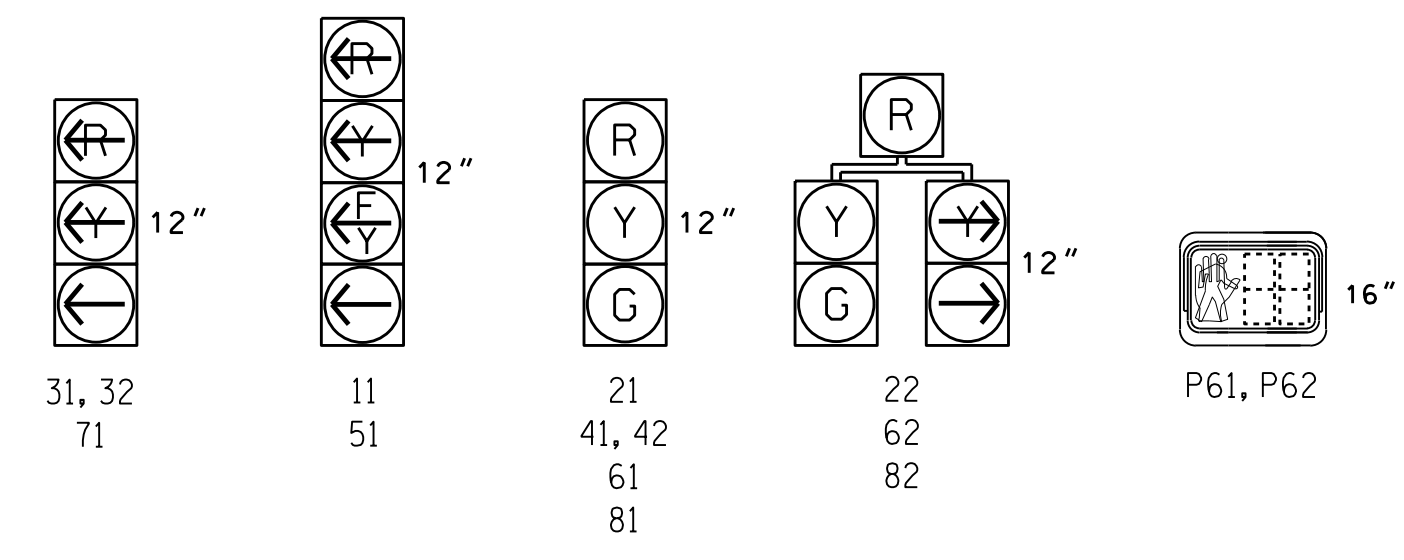
8 Phase Fully Actuated (Raleigh Signal System)

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.
- Phase 3 and/or phase 7 may be lagged.
- Set all detector units to presence mode.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- This intersection features a video detection system. Shown locations of detectors are conceptual only. Refer to the manufacturer's guidelines for optimal detector placement.

SIGNAL FACE I.D.

All Heads L.E.D.



SE-PAC 2070 TIMING CHART

| FEATURE | PHASE | | | | | | | |
|-------------------------|----------|------------|----------|----------|----------|------------|----------|----------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Min Green * | 7 | 12 | 7 | 7 | 7 | 12 | 7 | 7 |
| Passage Gap * | 1.0 | 6.0 | 2.0 | 1.0 | 1.0 | 6.0 | 2.0 | 1.0 |
| Maximum Green * | 15 | 75 | 25 | 20 | 15 | 75 | 25 | 20 |
| Yellow Change | 3.0 | 4.7 | 3.0 | 4.4 | 3.0 | 4.7 | 3.0 | 4.3 |
| Red Clear | 3.3 | 1.9 | 3.6 | 1.9 | 3.3 | 1.9 | 3.4 | 2.0 |
| Walk * | - | - | - | - | - | 4 | - | - |
| Pedestrian Clear | - | - | - | - | - | 30 | - | - |
| Added Initial * | - | 1.5 | - | - | - | 1.5 | - | - |
| Maximum Initial * | - | 34 | - | - | - | 34 | - | - |
| Time Before Reduction * | - | 15 | - | - | - | 15 | - | - |
| Time To Reduce * | - | 30 | - | - | - | 30 | - | - |
| Minimum Gap | - | 3.0 | - | - | - | 3.0 | - | - |
| Recall Mode | - | MIN RECALL | - | - | - | MIN RECALL | - | - |
| Vehicle Call Memory | NON-LOCK | LOCK | NON-LOCK | NON-LOCK | NON-LOCK | LOCK | NON-LOCK | NON-LOCK |
| Dual Entry | - | - | - | - | - | - | - | - |
| Simultaneous Gap | ON | ON | ON | ON | 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 | ●→ N/A |
| ○→ Modified Signal Head | ○→ Sign |
| ○→ Pedestrian Signal Head | ○→ Signal Pole with Guy |
| ○→ Signal Pole with Sidewalk Guy | ○→ Inductive Loop Detector |
| □→ Inductive Loop Detector | □→ Controller & Cabinet |
| □→ Junction Box | □→ 2-in Underground Conduit |
| N/A | → Right of Way |
| N/A | → Directional Arrow |
| N/A | → Curb Ramp |
| ○→ Out of Pavement Detector | ○→ Video Detection Area |
| ○→ Construction Zone Drums | ○→ Construction Zone |
| ⊕→ Type I Pushbutton Post | ⊕→ Type II Signal Pedestal |
| ⊕→ Right Arrow "ONLY" Sign (R3-5R) | ⊕→ "U-TURN YIELD TO RIGHT TURN" Sign (R10-16) |

Signal Upgrade - Temporary Design 2 (TMP Phase II)

Prepared in the Offices of:

SR 2000 (Falls of Neuse Rd.) at SR 2006 (Durant Rd.)
 Division 5 Wake County Raleigh
 PLAN DATE: July 2019 REVIEWED BY:
 PREPARED BY: J.A. Lohr REVIEWED BY:
 REVISIONS INIT. DATE
 SCALE 0 50
 1"=50'
 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
 SEAL
 8/28/2019
 SIG. INVENTORY NO. 05-1176T2