

2 Phase Fully Actuated W/ Alternate Phasing Operation Wilkesboro Closed Loop System

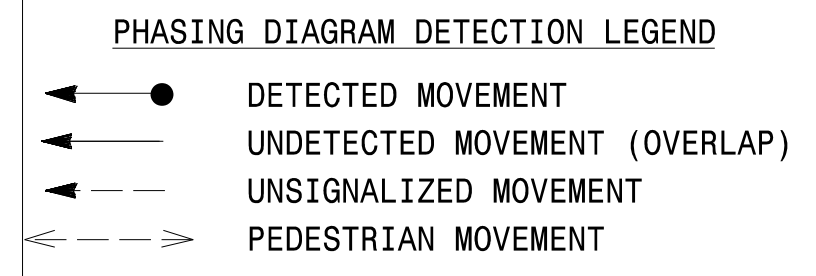
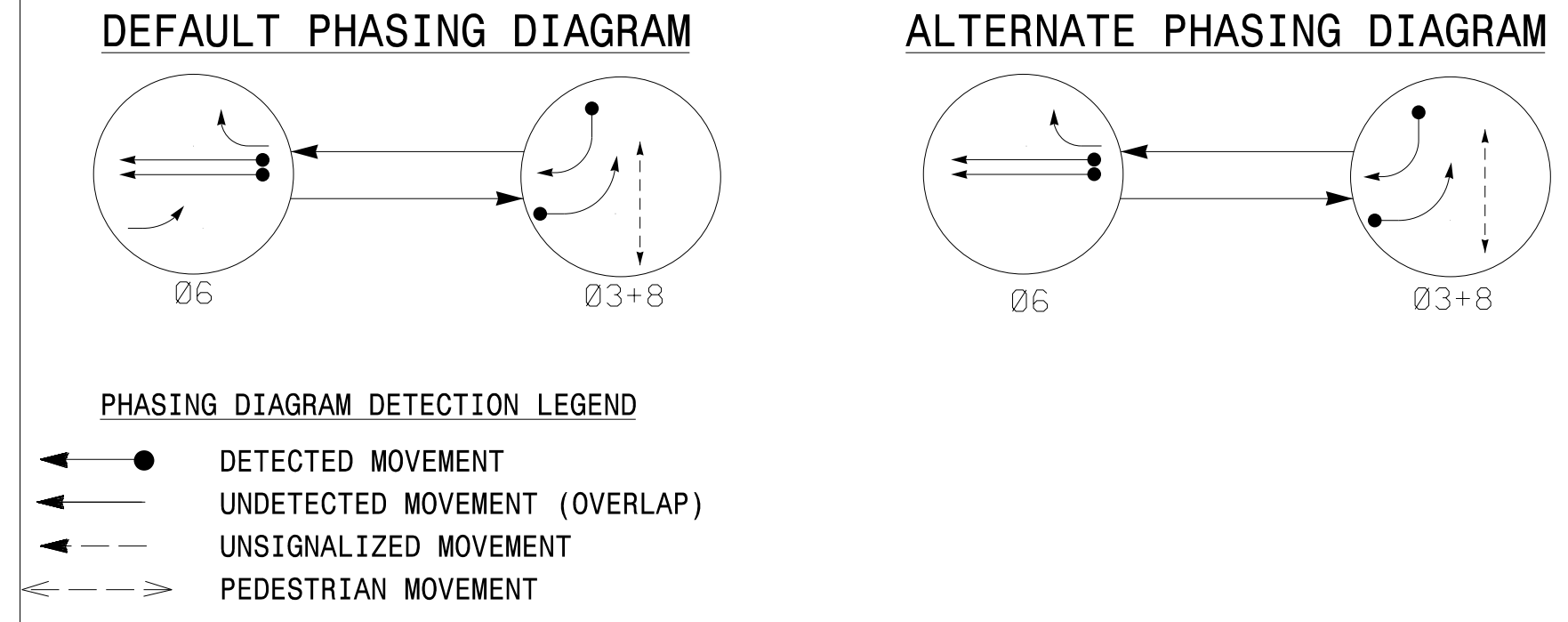
NOTES

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. The Division Traffic Engineer will determine the hours of use for each phasing plan.
5. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
6. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
7. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
8. Refer to Pavement Marking Plans for proposed stop bar locations.

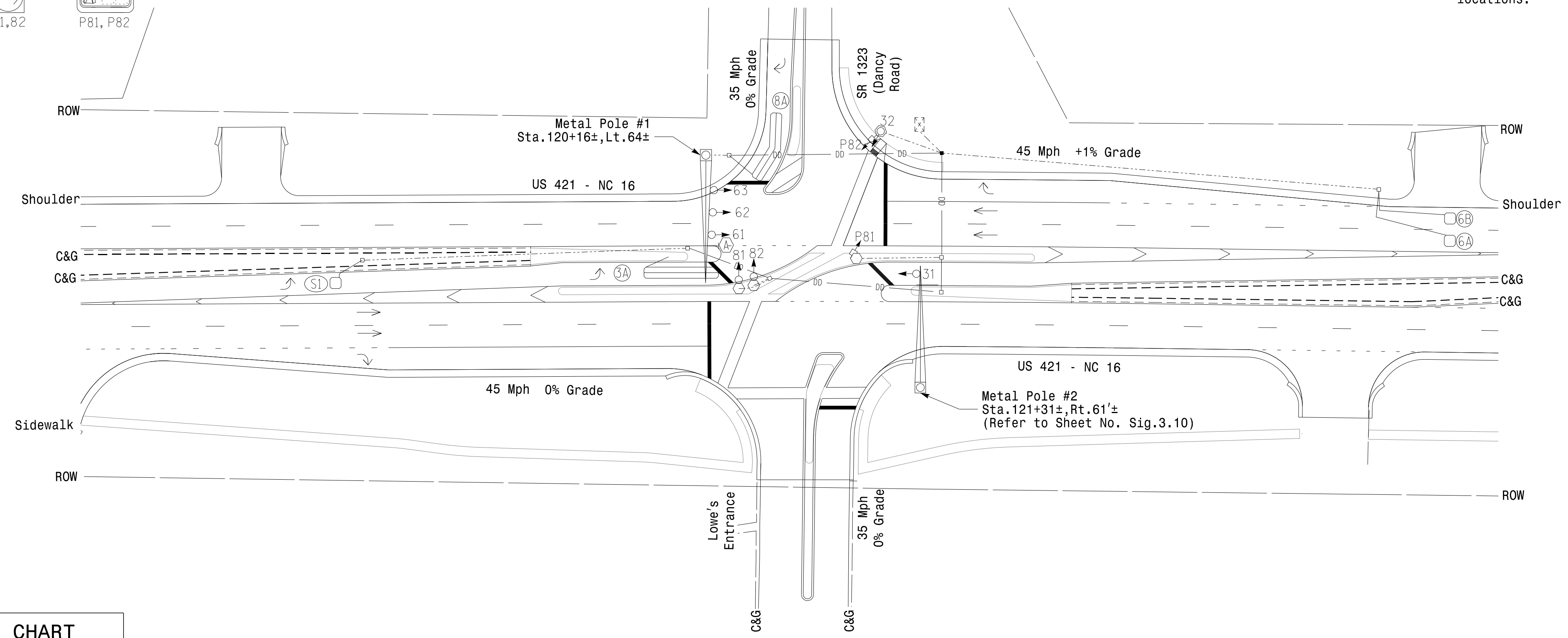
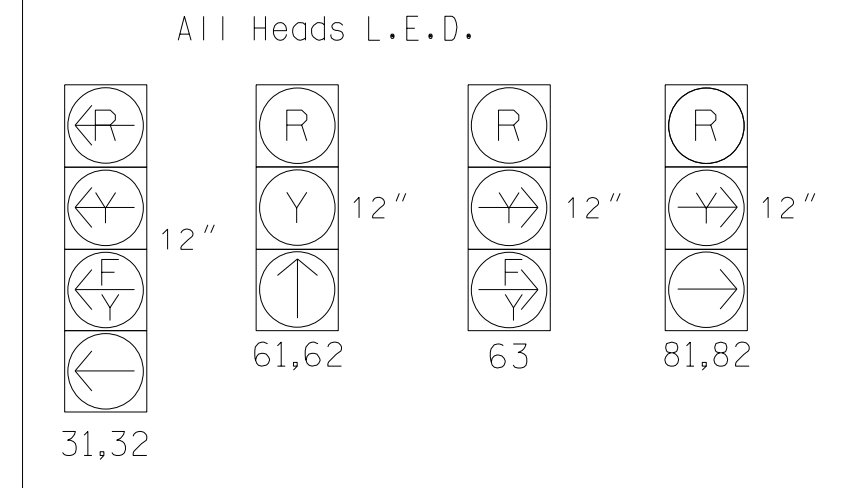
| MAXTIME DETECTOR INSTALLATION CHART |           |                            |       |          |             |            |             |        |               |                   |          |
|-------------------------------------|-----------|----------------------------|-------|----------|-------------|------------|-------------|--------|---------------|-------------------|----------|
| DETECTOR                            |           |                            |       |          | PROGRAMMING |            |             |        |               |                   |          |
| LOOP                                | SIZE (FT) | DISTANCE FROM STOPBAR (FT) | TURNS | NEW LOOP | CALL PHASE  | DELAY TIME | EXTEND TIME | EXTEND | ADDED INITIAL | CALL DURING GREEN | NEW CARD |
| 3A                                  | 6X40      | 0                          | 2-4-2 | X        | 3           | 15.0*      | -           | X      | -             | X                 | -        |
| 6A                                  | 6X6       | 300                        | 4     | X        | 6           | -          | -           | X      | X             | X                 | -        |
| 6B                                  | 6X6       | 300                        | 4     | X        | 6           | -          | -           | X      | X             | X                 | -        |
| 8A                                  | 6X40      | 0                          | 2-4-2 | X        | 8           | 15.0       | -           | X      | -             | X                 | -        |
| S1                                  | 6X6       | 200                        | 5     | X        | -           | -          | -           | -      | -             | -                 | -        |

\* Disable delay during alternate phasing operation

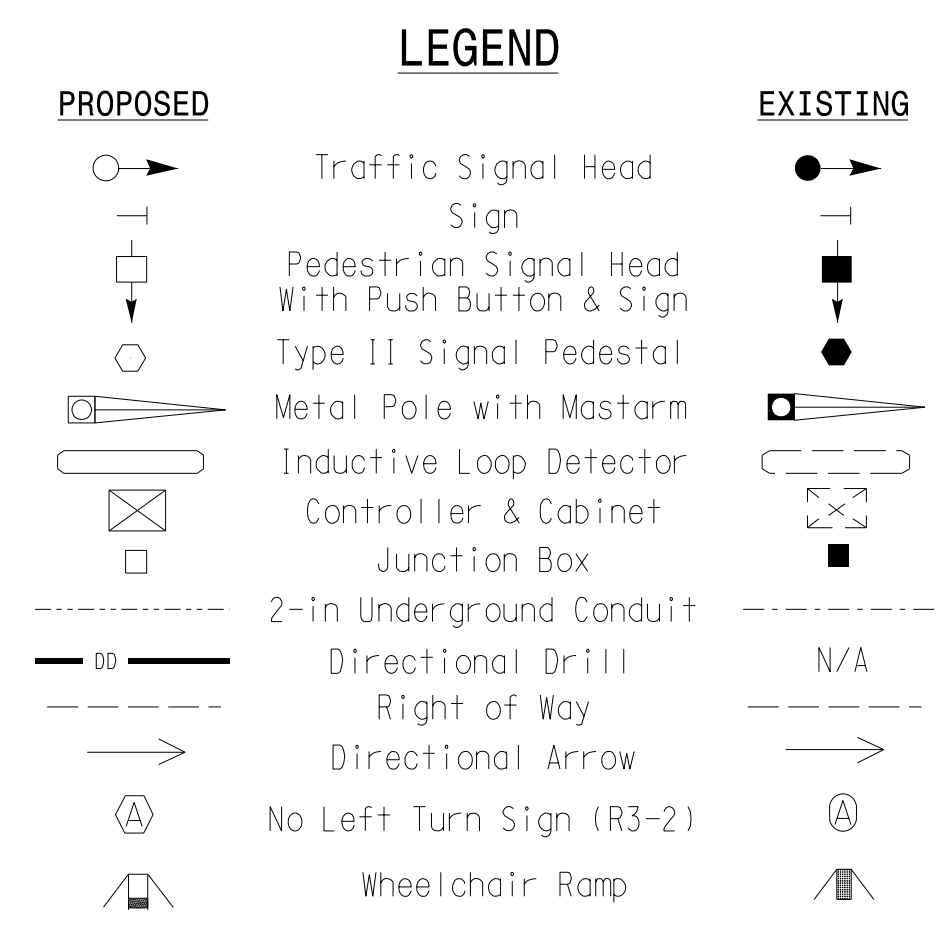
| DEFAULT PHASING TABLE OF OPERATION |       |      |       | ALTERNATE PHASING TABLE OF OPERATION |       |      |       |
|------------------------------------|-------|------|-------|--------------------------------------|-------|------|-------|
| SIGNAL FACE                        | PHASE |      |       | SIGNAL FACE                          | PHASE |      |       |
|                                    | 06    | 03+8 | FLASH |                                      | 03    | 03+8 | FLASH |
| 31,32                              | ←     | →    | Y     | ←                                    | →     | Y    |       |
| 61,62                              | ↑     | ↓    | Y     | ↑                                    | ↓     | Y    |       |
| 63                                 | ←     | →    | Y     | ←                                    | →     | Y    |       |
| 81,82                              | ←     | →    | R     | ←                                    | →     | R    |       |
| P81,P82                            | DW    | W    | DRK   | DW                                   | W     | DRK  |       |



SIGNAL FACE I.D.



| FEATURE                 | PHASE |            |     |
|-------------------------|-------|------------|-----|
|                         | 3     | 6          | 8   |
| Walk *                  | -     | -          | 7   |
| Ped Clear *             | -     | -          | 12  |
| Min Green               | 7     | 12         | 7   |
| Passage *               | 2.0   | 6.0        | 2.0 |
| Max 1 *                 | 30    | 60         | 30  |
| Yellow Change           | 3.0   | 4.4        | 3.8 |
| Red Clear               | 2.4   | 1.3        | 1.0 |
| Added Initial *         | -     | 1.5        | -   |
| Maximum Initial *       | -     | 34         | -   |
| Time Before Reduction * | -     | 15         | -   |
| Time To Reduce *        | -     | 30         | -   |
| Minimum Gap             | -     | 3.4        | -   |
| Advance Walk            | -     | -          | -   |
| Non Lock Detector       | X     | -          | X   |
| Vehicle 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.

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Signal Upgrade - Final Design

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

US 421-NC 16 at SR 1323 (Dancy Road)

Division 11 Wilkes County Wilkesboro

PLAN DATE: May 2023 REVIEWED BY: M. Stygles

PREPARED BY: S.R. Chiluka REVIEWED BY: J. Ma

SCALE 0 40

REVISIONS

INIT. DATE

SIGNATURE DATE

SIG. INVENTORY NO. 11-1332

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER

SRIKANTHA R. CHILUKA

047250

5/24/2023