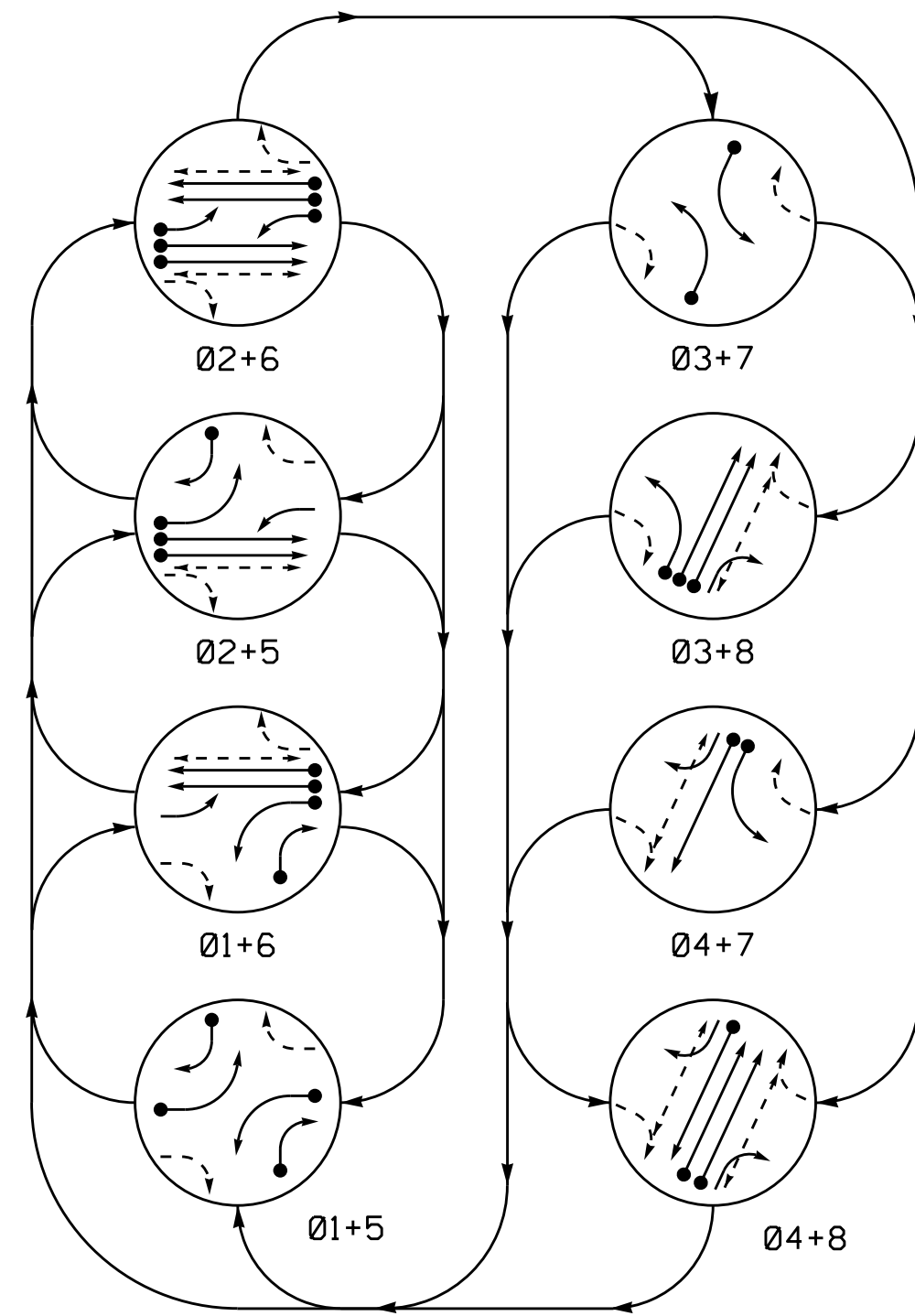


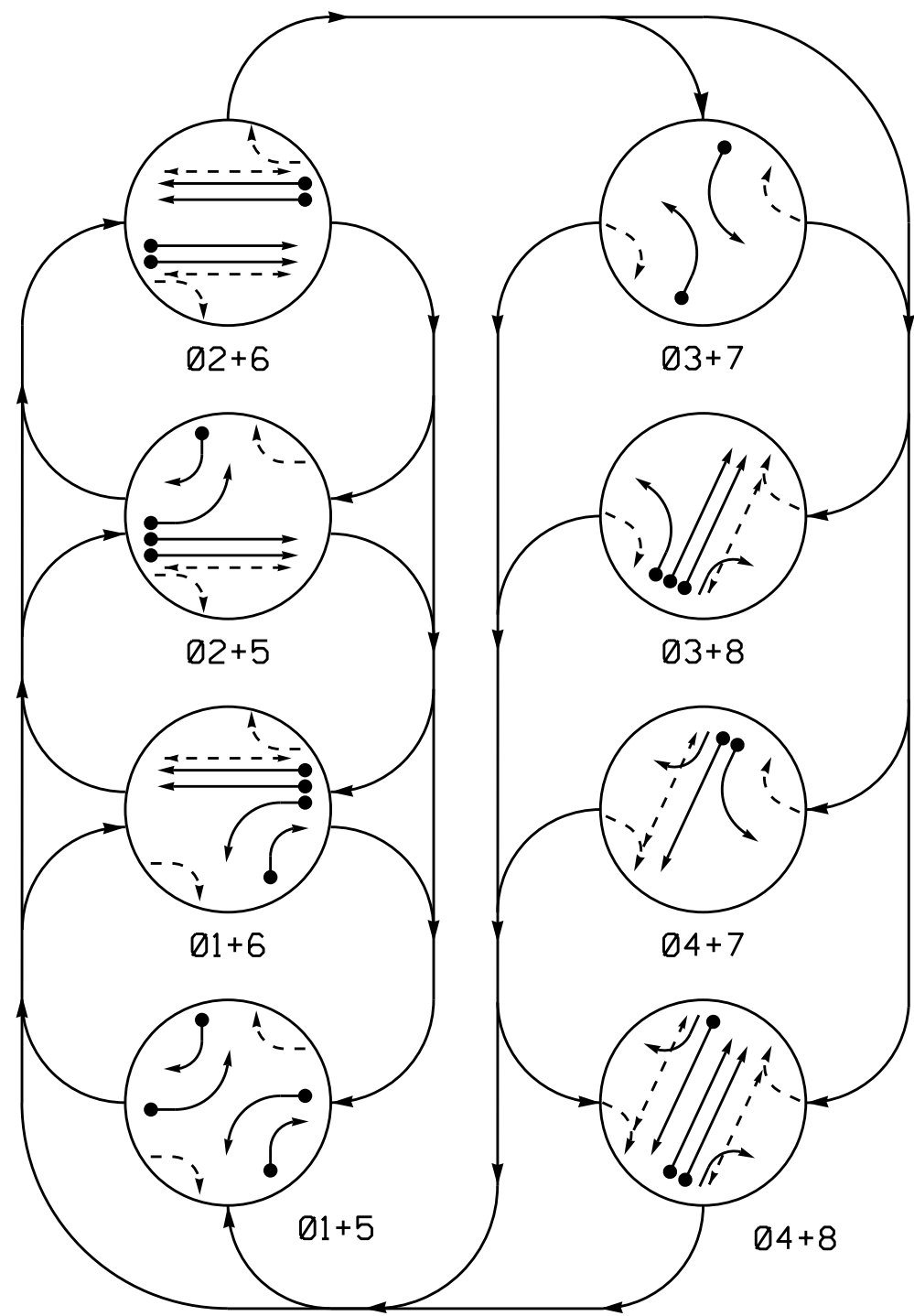
DEFAULT PHASING DIAGRAM



DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE							
	01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8
11	---	---	---	---	---	---	---	---
21, 22	R	R	G	G	R	R	R	Y
31	---	---	---	---	---	---	---	---
41	R	R	R	R	R	G	G	R
42	R	R	R	R	R	G	G	R
51	---	---	---	---	---	---	---	---
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
P21, P22	DW	DW	W	W	DW	DW	DW	DRK
P41, P42	DW	DW	DW	DW	DW	W	W	DRK
P61, P62	DW	W	DW	W	DW	DW	DW	DRK
P81, P82	DW	DW	DW	DW	W	DW	W	DRK

ALTERNATE PHASING DIAGRAM



ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE							
	01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8
11	---	---	---	---	---	---	---	---
21, 22	R	R	G	G	R	R	R	Y
31	---	---	---	---	---	---	---	---
41	R	R	R	R	R	G	G	R
42	R	R	R	R	R	G	G	R
51	---	---	---	---	---	---	---	---
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
P21, P22	DW	DW	W	W	DW	DW	DW	DRK
P41, P42	DW	DW	DW	DW	DW	W	W	DRK
P61, P62	DW	W	DW	W	DW	DW	DW	DRK
P81, P82	DW	DW	DW	DW	W	DW	W	DRK

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				
1A	6X40	0	2-4-2	Y	1	Y	Y	-	-	★15	-	Y
1B	6X40	0	2-4-2	Y	1	Y	Y	-	-	15	-	Y
2A	6X6	300	4	Y	2	Y	Y	-	-	-	-	Y
2B	6X6	300	4	Y	2	Y	Y	-	-	-	-	Y
3A	6X40	0	2-4-2	Y	3	Y	Y	-	-	-	-	Y
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	-	-	Y
4B**	6X6	0	2-4-2 Diagonal	Y	4	Y	Y	-	-	10	-	Y
5A	6X40	0	2-4-2	Y	5	Y	Y	-	-	★15	-	Y
5B	6X40	0	2-4-2	Y	5	Y	Y	-	-	15	-	Y
6A	6X6	300	6	Y	6	Y	Y	-	-	-	-	Y
6B	6X6	300	6	Y	6	Y	Y	-	-	-	-	Y
7A	6X40	0	2-4-2	Y	7	Y	Y	-	-	-	-	Y
8A	6X40	0	2-4-2	Y	8	Y	Y	-	-	-	-	Y
8B	6X40	0	2-4-2	Y	8	Y	Y	-	-	-	-	Y

# Disable Phases(s) call during Alternate Phasing Operation.  
 ★ Reduce Delay to 3 sec during Alternate Phasing Operation.  
 \*\* Set sensitivity to appropriate level to detect a bicycle

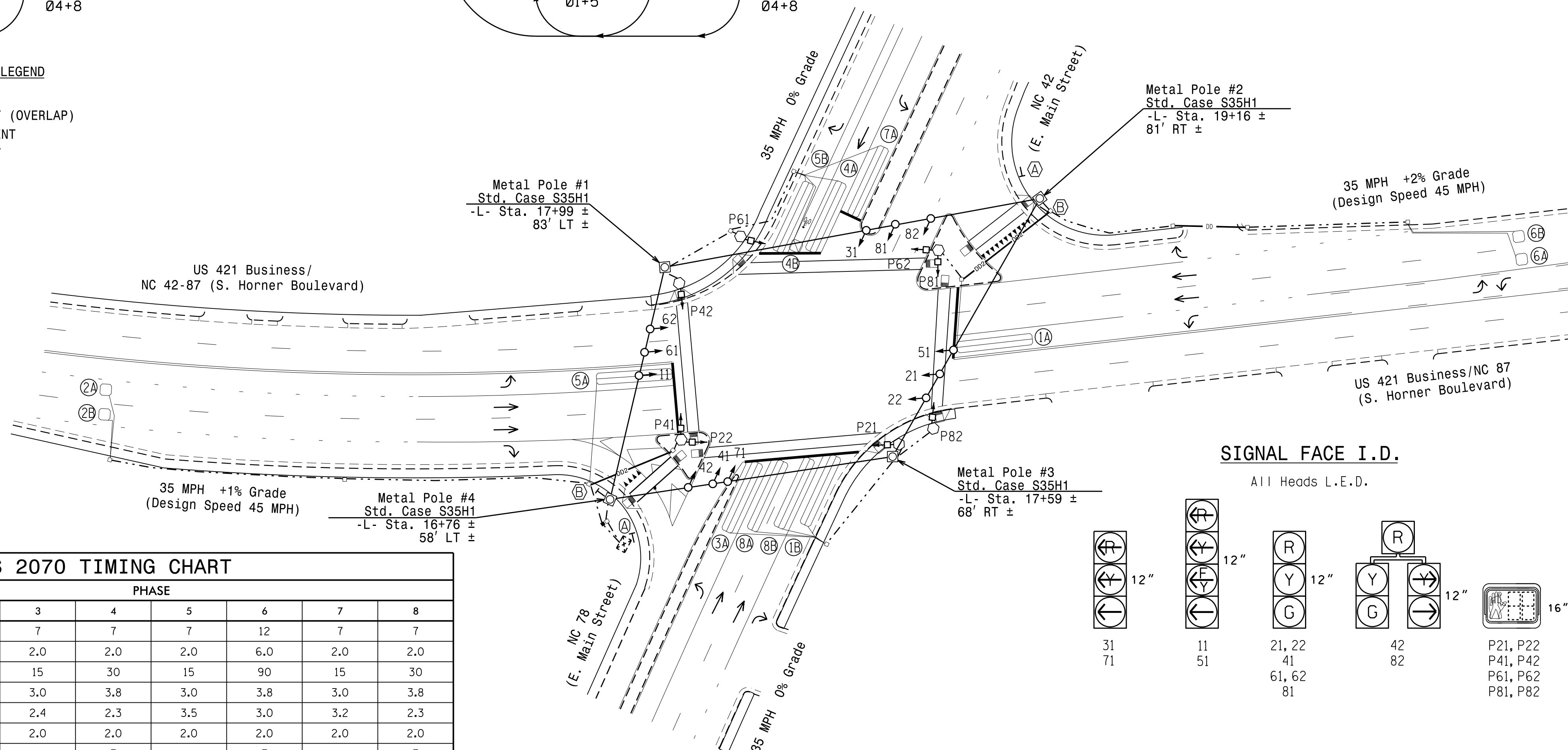
8 Phase Fully Actuated  
 (US 421 Bus./NC 87-42  
 (Horner Blvd.) - System 2 CLS)  
 Signal System #: D08-02\_Sanford

NOTES

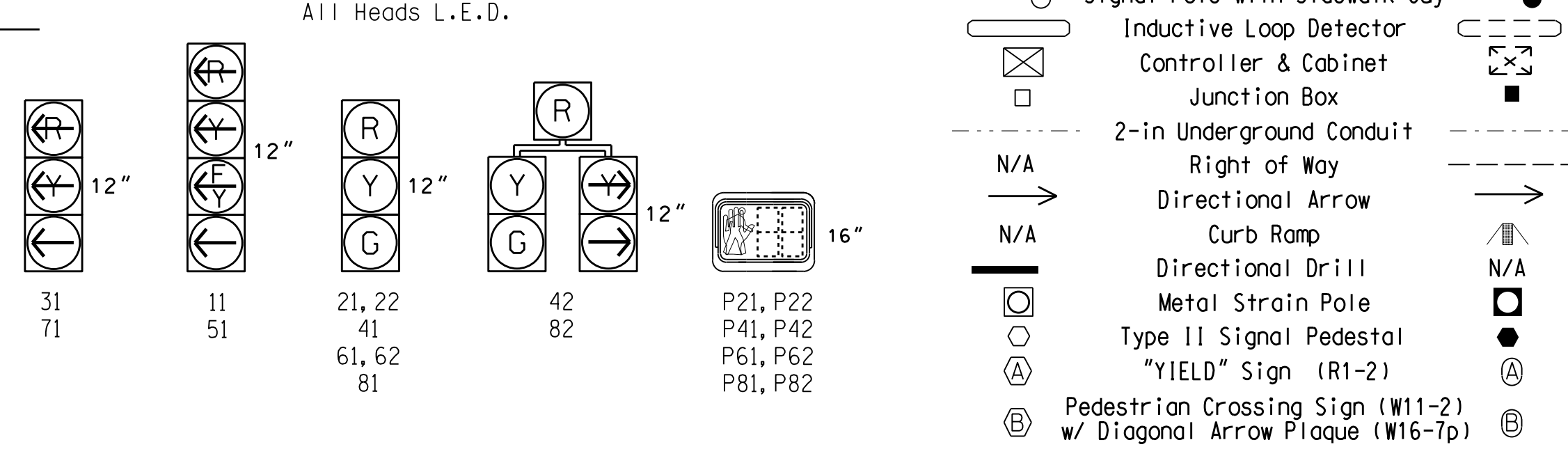
- Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- Phase 3 and/or phase 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.
- The Division Traffic Engineer will determine the hours of use for each phasing plan.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Closed Loop System Data: Controller Asset #: 0047.
- All signal heads shall be black in color with black visors.
- All metal poles shall and pedestals shall be black in color as specified in the Project Special Provisions.

PHASING DIAGRAM DETECTION LEGEND

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



SIGNAL FACE I.D.



LEGEND

- | PROPOSED   | EXISTING   |
|--|--|
| ○ → Traffic Signal Head  | ● → Traffic Signal Head  |
| ○ → Modified Signal Head   | N/A  |
| ⊥ Sign   | ⊥ Sign   |
| ⊥ Pedestrian Signal Head   | ⊥ Pedestrian Signal Head   |
| ⊥ Signal Pole with Guy   | ⊥ Signal Pole with Guy   |
| ⊥ Signal Pole with Sidewalk Guy                                      | ⊥ Signal Pole with Sidewalk Guy                                      |
| ⊥ Inductive Loop Detector  | ⊥ Inductive Loop Detector  |
| ⊥ Controller & Cabinet   | ⊥ Controller & Cabinet   |
| ⊥ Junction Box   | ⊥ Junction Box   |
| ⊥ 2-in Underground Conduit   | ⊥ 2-in Underground Conduit   |
| → Directional Arrow  | → Directional Arrow  |
| → Curb Ramp  | → Curb Ramp  |
| → Directional Drill  | N/A  |
| ○ Metal Strain Pole  | ○ Metal Strain Pole  |
| ○ Type II Signal Pedestal  | ○ Type II Signal Pedestal  |
| ○ "YIELD" Sign (R1-2)  | ○ "YIELD" Sign (R1-2)  |
| ⊕ Pedestrian Crossing Sign (W11-2) w/ Diagonal Arrow Plaque (W16-7p) | ⊕ Pedestrian Crossing Sign (W11-2) w/ Diagonal Arrow Plaque (W16-7p) |

OASIS 2070 TIMING CHART

FEATURE	PHASE							
	1	2	3	4	5	6	7	8
Min Green 1*	7	12	7	7	7	12	7	7
Extension 1*	2.0	6.0	2.0	2.0	2.0	6.0	2.0	2.0
Max Green 1*	15	90	15	30	15	90	15	30
Yellow Clearance	3.0	3.8	3.0	3.8	3.0	3.8	3.0	3.8
Red Clearance	3.7	3.0	2.4	2.3	3.5	3.0	3.2	2.3
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1*	-	7	-	7	-	7	-	7
Don't Walk 1	-	24	-	17	-	25	-	15
Seconds Per Actuation*	-	1.5	-	-	-	1.5	-	-
Max Variable Initial*	-	34	-	-	-	34	-	-
Time Before Reduction*	-	15	-	-	-	15	-	-
Time To Reduce*	-	45	-	-	-	40	-	-
Minimum Gap	-	3.0	-	-	-	3.0	-	-
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL	-	-
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW	-	-
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.

Signal Upgrade - Final Design

Prepared in the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27526

US 421 Business/ NC 87 (S. Horner Boulevard) at NC 42-78 (E. Main Street)

Division 8 Lee County Sanford

PLAN DATE: March 2022 REVIEWED BY:

PREPARED BY: J.A. Lohr REVIEWED BY:

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

04/19/2022

SIG. INVENTORY NO. 08-0047