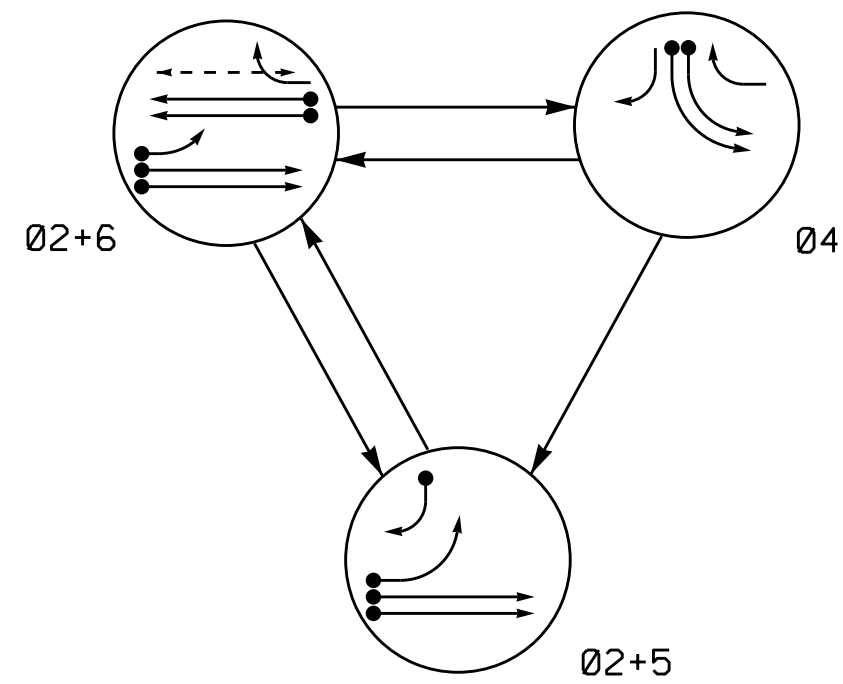


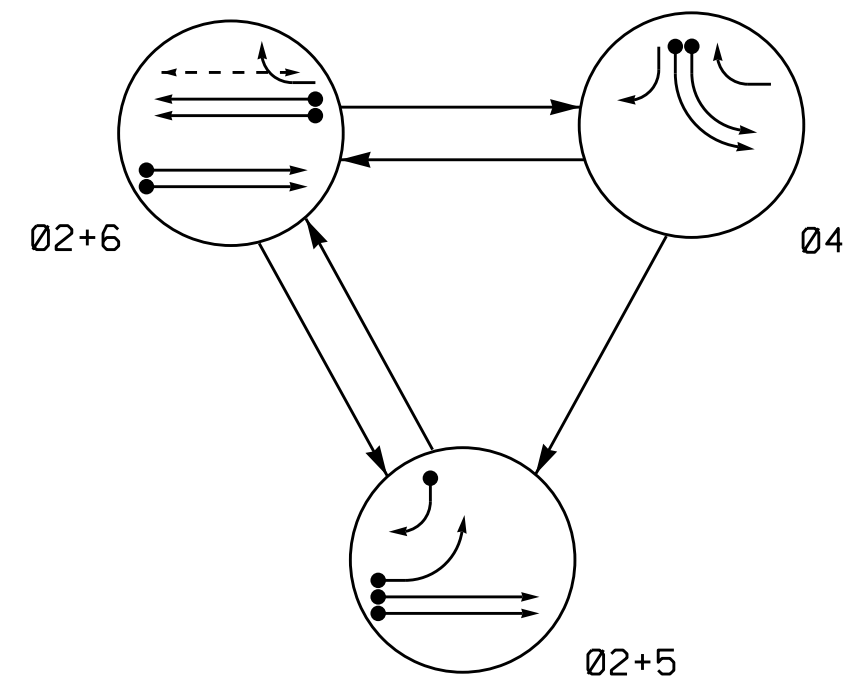
DEFAULT PHASING DIAGRAM



DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE			
	02+5	02+6	04	F L O P
21, 22	G	G	R	Y
41, 42	R	R	Y	R
43	→	R	→	R
51	←	←	←	←
61, 62	R	G	R	Y
63	R	←	←	←
P61, P62	DW	W	DW	DRK

ALTERNATE PHASING DIAGRAM



ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE			
	02+5	02+6	04	F L O P
21, 22	G	G	R	Y
41, 42	R	R	Y	R
43	→	R	→	R
51	←	←	←	←
61, 62	R	G	R	Y
63	R	←	←	←
P61, P62	DW	W	DW	DRK

PHASING DIAGRAM DETECTION LEGEND

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

OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

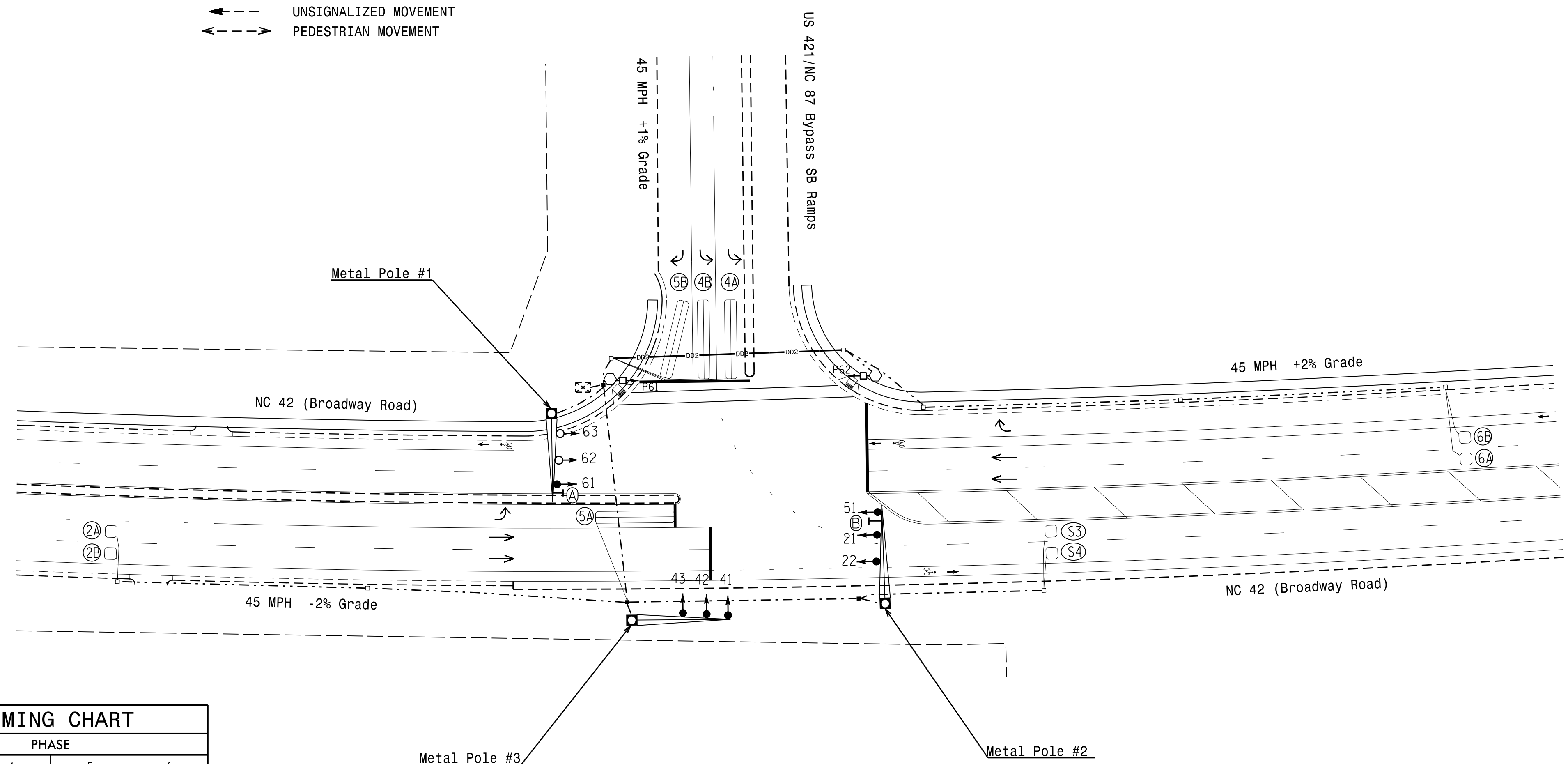
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING				SYSTEM LOOP NEW CARD		
					PHASE	CALLING	EXTENSION	STRETCH TIME		DELAY TIME	
2A	6X6	300	4	Y	2	Y	Y	-	-	-	Y
2B	6X6	300	4	Y	2	Y	Y	-	-	-	Y
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	-	Y
4B	6X40	0	2-4-2	Y	4	Y	Y	-	-	-	Y
5A	6X40	0	2-4-2	Y	5	Y	Y	-	★15	-	Y
5B	6X40	0	2-4-2	Y	5	Y	Y	-	15	-	Y
6A	6X6	300	4	Y	6	Y	Y	-	-	-	Y
6B	6X6	300	4	Y	6	Y	Y	-	-	-	Y
S3	6X6	+170	4	Y	-	-	-	-	-	-	Y
S4	6X6	+170	4	Y	-	-	-	-	-	-	Y

- ★ Disable Delay during Alternate Phasing Operation.
- # Disable Phases/call during Alternate Phasing Operation.

3 Phase Fully Actuated (US 421 - NC 87 (Sanford Byp) CLS) Signal System #: D08-23_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 5 may be lagged.
- Reposition existing signal heads numbered 21, 22, 61, and 62.
- 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:
Master Asset #: 10823.
Controller Asset #: 1064.



OASIS 2070 TIMING CHART

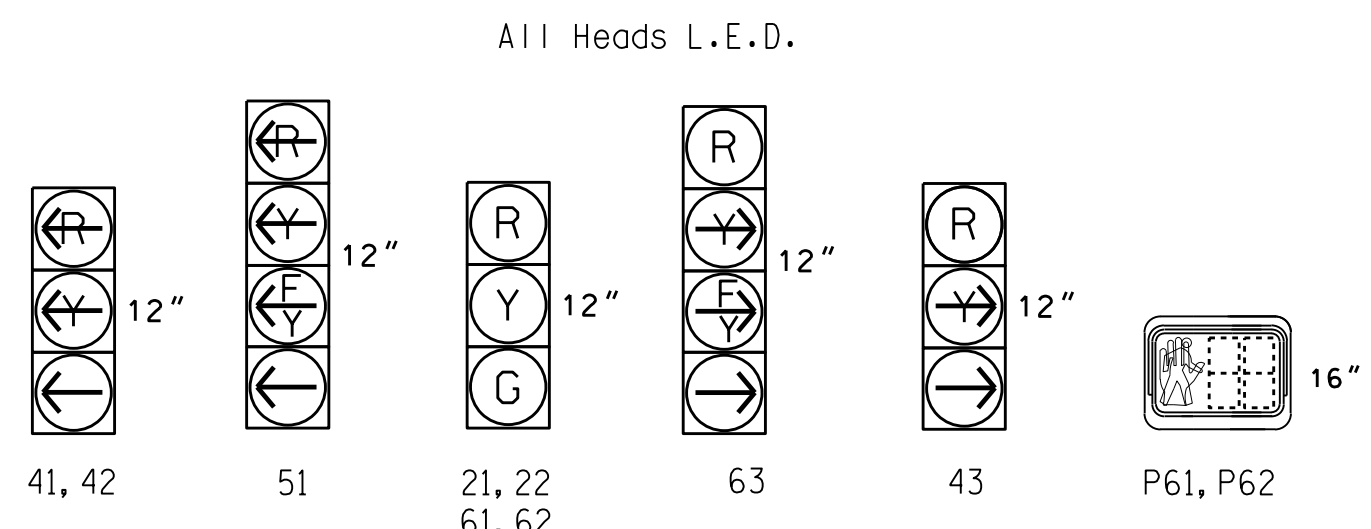
FEATURE	PHASE			
	2	4	5	6
Min Green 1 *	12	7	7	12
Extension 1 *	6.0	2.0	2.0	6.0
Max Green 1 *	90	25	20	90
Yellow Clearance	4.3	3.0	3.0	4.3
Red Clearance	1.6	3.3	2.8	1.6
Red Revert	2.0	2.0	2.0	2.0
Walk 1 *	-	-	-	7
Don't Walk 1	-	-	-	29
Seconds Per Actuation *	1.5	-	-	1.5
Max Variable Initial *	34	-	-	34
Time Before Reduction *	15	-	-	15
Time To Reduce *	30	-	-	30
Minimum Gap	3.2	-	-	3.2
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

- | 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 |
| N/A Right of Way | N/A Right of Way |
| → Directional Arrow | → Directional Arrow |
| N/A Curb Ramp | N/A Curb Ramp |
| ○ Metal Pole with Mastarm | ○ Metal Pole with Mastarm |
| ○ Directional Drill | N/A |
| ○ Type II Signal Pedestal | ○ Type II Signal Pedestal |
| ○ No Left/No U-Turn Sign (R3-18) | ○ No Left/No U-Turn Sign (R3-18) |
| ○ "U-TURN YIELD TO RIGHT TURN" Sign (R10-16) | ○ "U-TURN YIELD TO RIGHT TURN" Sign (R10-16) |

SIGNAL FACE I.D.



Signal Upgrade - Final Design

Prepared in the Offices of:

 NC 42 (Broadway Road) at US 421/NC 87 Bypass SB Ramps
 Division 8 Lee County Sanford
 PLAN DATE: March 2022 REVIEWED BY:
 PREPARED BY: J.A. Lohr REVIEWED BY:
 REVISIONS: INIT. DATE
 SCALE: 1" = 40'
 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
 SEAL: ROBERT J. LITTLE, PROFESSIONAL ENGINEER, NO. 026486, DATE: 04/21/2022
 SIG. INVENTORY NO. 08-1064