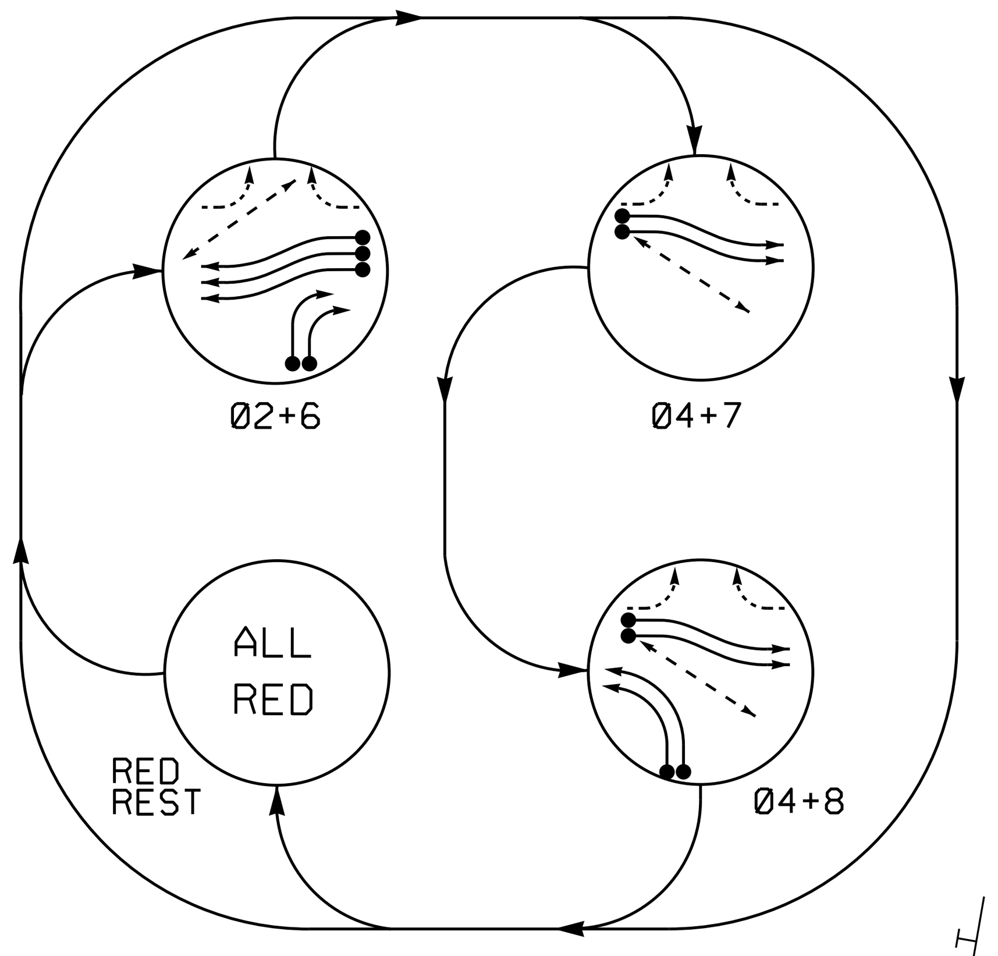
3 Phase
Fully Actuated
(Winston-Salem Signal System)

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

SIGNAL FACE I.D.

All Heads L.E.D.

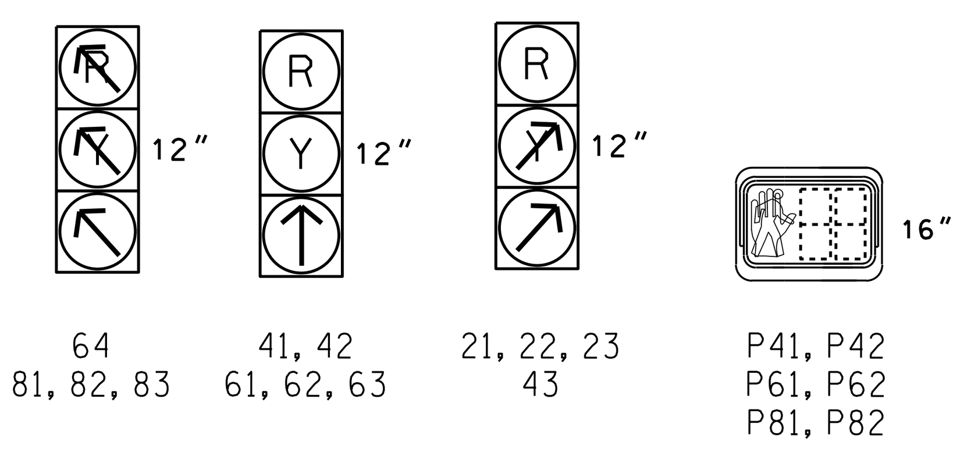


TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2+6	Ø4+7	Ø4+8	RED REST	FLASH
21, 22, 23	↗	R	R	R	R
41, 42	R	↑	↑	R	R
43	R	↗	↗	R	R
61, 62, 63	↑	R	R	R	R
64	↖	R↖	R↖	R↖	R↖
81, 82, 83	R↖	R↖	↖	R↖	R↖
P41, P42	DW	W	W	DW	DRK
P61, P62	W	DW	DW	DW	DRK
P81, P82	DW	DW	W	DW	DRK

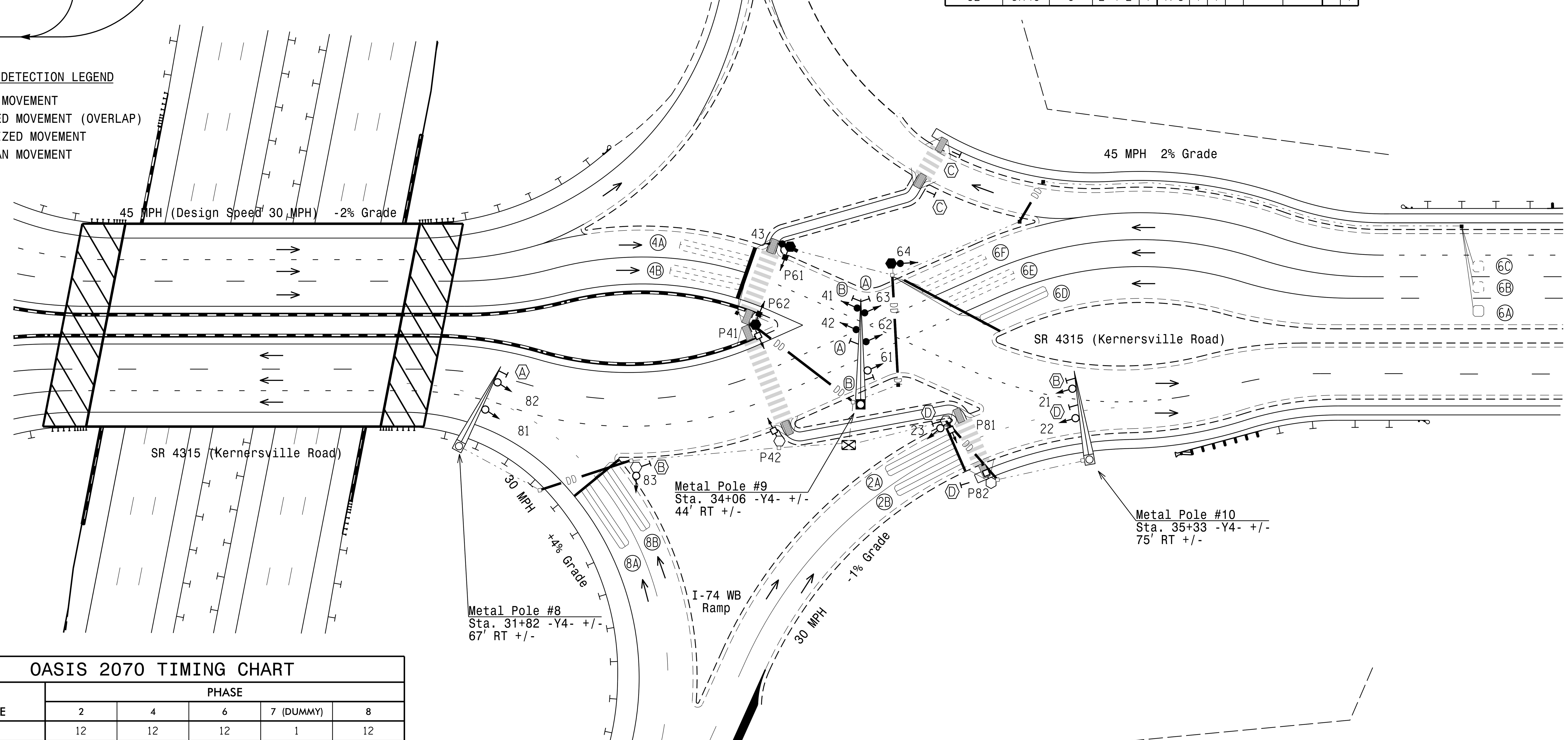
W - Walk
DW - Don't Walk
DRK - Dark

OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
ZONE	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
2A	6X40	0	2-4-2	Y	2	Y	Y	-	-	-	-	Y
2B	6X40	0	2-4-2	Y	2	Y	Y	-	-	-	-	Y
4A	6X40	0	2-4-2	-	4	Y	Y	-	-	-	-	-
4B	6X40	0	2-4-2	-	4	Y	Y	-	-	-	-	-
6A	6X6	300	4	Y	6	Y	Y	-	-	-	-	Y
6B	6X6	300	4	-	6	Y	Y	-	-	-	-	-
6C	6X6	300	4	-	6	Y	Y	-	-	-	-	-
6D	6X40	0	2-4-2	Y	6	Y	Y	Y	2.0	5	-	Y
6E	6X40	0	2-4-2	-	6	Y	Y	Y	2.0	5	-	-
6F	6X40	0	2-4-2	-	6	Y	Y	Y	2.0	5	-	-
8A	6X40	0	2-4-2	Y	7/8	Y	Y	-	-	-	-	Y
8B	6X40	0	2-4-2	Y	7/8	Y	Y	-	-	-	-	Y

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. Program controller to clear from phase 2+6 to phase 8 by progressing through phase 7.
4. Omit phase 7 during phase 8 on.
5. Omit phase 8 during phase 2 on.
6. Set all detector units to presence mode.
7. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
8. Program pedestrian heads to countdown the flashing "Don't Walk" time only
9. Program all phases for Red Rest.
10. Program controller to start up in an all red interval followed by phase 2+6 green.
11. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



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	
N/A	Guardrail	
DD	Directional Drill	DD
	Type II Signal Pedestal	
	Metal Pole with Mastarm	
N/A	Curb Ramp	
Ⓐ	No Right Turn Sign (R3-1)	Ⓐ
Ⓑ	No Left Turn Sign (R3-2)	Ⓑ
Ⓒ	Pedestrian Crossing Sign (W11-2) w/ Diagonal Arrow Plaque (W16-7p)	Ⓒ
Ⓓ	"NO TURN ON RED" Sign (R10-11)	Ⓓ

OASIS 2070 TIMING CHART

FEATURE	PHASE 2	4	6	7 (DUMMY)	8
Min Green 1 *	12	12	12	1	12
Extension 1 *	2.0	2.0	6.0	0.0	2.0
Max Green 1 *	60	60	60	1	60
Yellow Clearance	3.6	3.6	4.3	3.4	3.3
Red Clearance	1.4	3.7	1.7	3.1	1.3
Walk 1 *	-	7	7	-	7
Don't Walk 1	-	11	6	-	4
Seconds Per Actuation *	-	-	-	-	-
Max Variable Initial *	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-
Time To Reduce *	-	-	-	-	-
Minimum Gap	-	-	10	-	-
Recall Mode	-	-	20	-	-
Vehicle Call Memory	-	-	3.0	-	-
Dual Entry	ON	ON	ON	-	ON
Simultaneous Gap	ON	ON	ON	ON	ON
Red Rest	ON	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phase 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

28-JUL-2021 10:23
**Dot*dfsroot01*Proj*TIPProjects-U*U2579ab*Traffic*Signals*Design*Signals*09-0740*090740_sig_dsn_20210712.dgn
rziemba

Signal Upgrade - Final Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Offices of: Transportation Mobility and Safety Division, Signal Design Section
750 N.Greenfield Pkwy.Garner,NC 27529

SR 4315 (Kernersville Road) at I-74 WB Ramps

Division 9 Forsyth County Winston-Salem

PLAN DATE: May 2021	REVIEWED BY:
PREPARED BY: I. O. Umozurike	REVIEWED BY:

SCALE 0 40 1"=40'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 026486 ENGINEER ROBERT J. ZIEMBA
DocuSigned by:
SIGNATURE 7/12/2021 DATE
SIG. INVENTORY NO. 09-0740