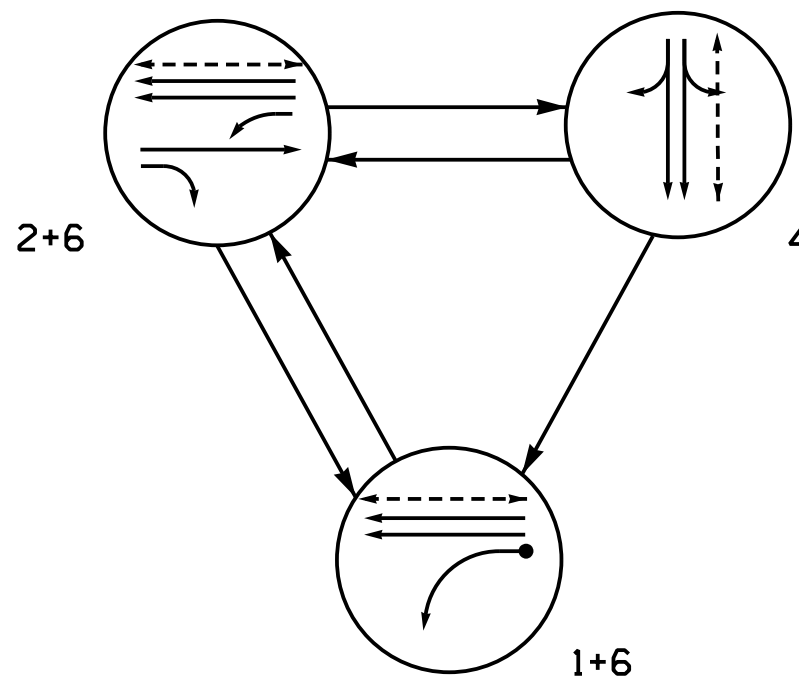
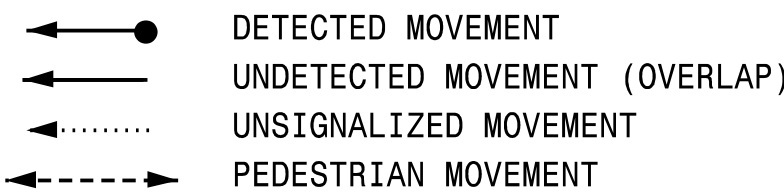


PHASING DIAGRAM

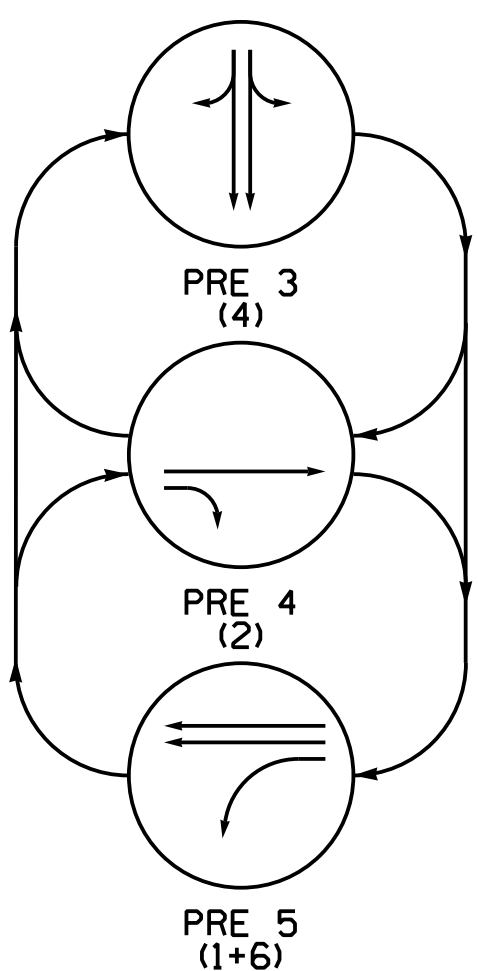


PHASING DIAGRAM DETECTION LEGEND



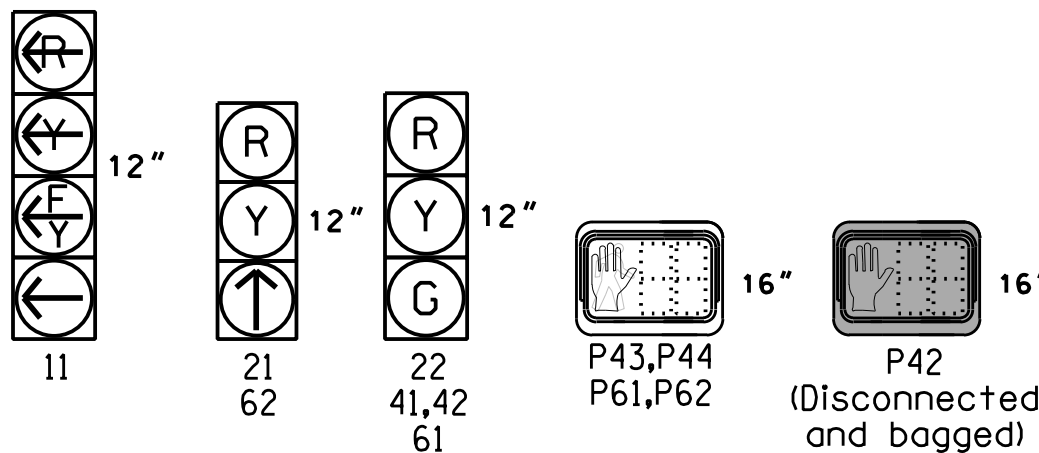
EV PREEMPT PHASES

(Medium Priority)



SIGNAL FACE I.D.

All Heads L.E.D.



SE-PAC 2070 TIMING CHART

FEATURE	PHASE			
	1	2	4	6
Min Green *	7	10	7	10
Passage Gap *	3.0	-	-	-
Maximum Green *	40	40	40	40
Yellow Change	3.0	3.8	4.0	3.8
Red Clear	1.8	1.4	1.7	1.4
Walk *	-	-	11	14
Pedestrian Clear	-	-	32	14
Advance Walk *	-	-	4	7
Added Initial *	-	-	-	-
Maximum Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Recall Mode	-	MAX RECALL	MAX/PED RECALL	MAX/PED RECALL
Vehicle Call Memory	NON-LOCK	NON-LOCK	NON-LOCK	NON-LOCK
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.

SE-PAC Preemption

FUNCTION	PRE 3	PRE 4	PRE 5
MIN GRN / WLK	1	1	1
EXIT PHASES	4	2	1+6
DELAY	0.0	0.0	0.0
MXCALL	120	120	120
SEL PED CLR	30	0	12
SEL YEL / 10	0*	0*	0*
SEL RED / 10	0*	0*	0*
TRACK GREEN	0	0	0
TRK PED CLR	0	0	0
TRK YEL / 10	0	0	0
TRK RED / 10	0	0	0
DWELL GRN	7	10	10
RET PED CLR	0	0	0
RET YEL / 10	0*	0*	0*
RET RED / 10	0*	0*	0*
PREEMPT EXTEND**	2.0	2.0	2.0

\* Time defaults to time used for phase during normal operation.  
\*\* Program Timing on Optical Detection Unit.

TABLE OF OPERATION

SIGNAL FACE	PHASE							
	1 + 6	2 + 6	4	PRE 3	PRE 4	PRE 5	FLASH	
11	-	-	-	-	-	-	-	
21	R	↑	R	R	↑	R	R	
22	R	G	R	R	G	R	R	
41,42	R	R	G	G	R	R	R	
61	G	G	R	R	R	G	R	
62	↑	↑	R	R	R	↑	R	
P43,P44	DW	DW	W	DW	DW	DW	DRK	
P61,P62	W	W	DW	DW	DW	DW	DRK	

SE-PAC 2070 LOOP & DETECTOR UNIT INSTALLATION CHART

INDUCTIVE LOOPS					DETECTOR PROGRAMMING												
ZONE	SIZE (ft)	TURNS	DIST. FROM STOP LINE (ft)	NEW EXISTING	ASSIGNED PHASE	TIMING		OPERATION MODE								SYSTEM LOOPS	STATUS
						DELAY	EXTEND (STRETCH)	VEHICLE	PEDESTRIAN	1 CALL	2	3	4	5	6		
1A*	6X40	*	0	*	-	1	15 SEC.	-	SEC.	X	-	-	-	-	-	-	-

\* Multizone Microwave Detection

3 Phase with EVP  
Semi-Actuated  
Hickory City Signal System  
NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 may be lagged.
- Reposition existing signal heads numbered 22, and 62, signs A, B, and C and PRE 4 and 5.
- Disconnect and bag existing pedestrian head numbered P42.
- Set all detector units to presence mode.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- This intersection features an optical preemption system. Shown locations of optical detectors are conceptual only.
- This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Hickory Signal System Data: Controller Asset #0316.

LEGEND

PROPOSED	EXISTING
	N/A
	N/A
	N/A
	N/A
	N/A

Signal Upgrade -  
Temporary Design 3  
(Construction Phase 2)

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

 Prepared for: Hickory City Signal Design Section 750 N. Greenfield Hwy, Garner, NC 27529	NC 127 SE at SR 2231 (2nd Ave SE)		SEAL NORTH CAROLINA PROFESSIONAL ENGINEER 031464 W. A. SIMMONS R. SIMMONS
	Division 12 PLAN DATE: October 2023 PREPARED BY: E.E. Tiller	Catawba County Hickory REVIEWED BY: N.K. Vianich REVIEWED BY: N.R. Simmons	
REVISIONS		INIT.	DATE
0			
1"=40'			
SIGNED BY:		DATE: 9/6/2024	
SIC. INVENTORY NO. 12-094573			

HNTB  
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