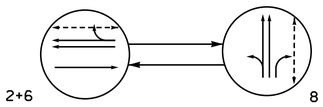
Docusign Envelope ID: EFF8A1FE-DDBC-4645-B7E4-7BBB1FE0CB7F

PROJECT REFERENCE NO.	SHEET NO.
U-5777	Sig. 11.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

EV PREEMPT PHASES

(Medium Priority)

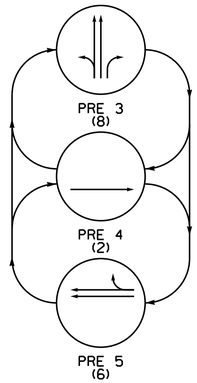
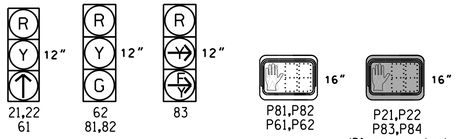


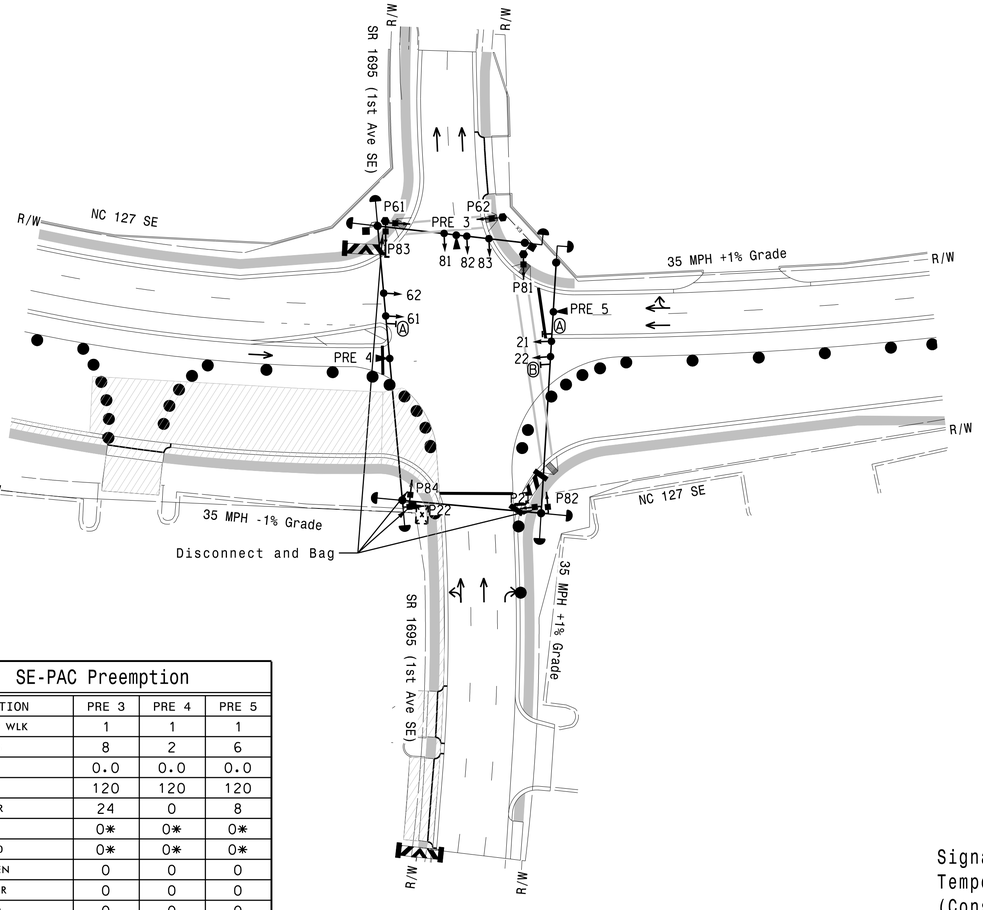
TABLE OF OPERATION

SIGNAL FACE	PHASE 2+6	PHASE 8	PHASE PRE 3	PHASE PRE 4	PHASE PRE 5	PHASE FLASH
21,22	↑	R	R	↑	R	R
61	↑	R	R	R	↑	R
62	G	R	R	R	G	R
81,82	R	G	G	R	R	R
83	R	F.Y	F.Y	R	R	R
P61,P62	W	DW	DW	DW	DW	DRK
P81,P82	DW	W	DW	DW	DW	DRK

SIGNAL FACE I.D.

All Heads L.E.D.





SE-PAC 2070 TIMING CHART

FEATURE	PHASE 2	PHASE 4	PHASE 6	PHASE 8
Min Green *	10	7	10	7
Passage Gap *	-	-	-	-
Maximum Green *	40	40	40	40
Yellow Change	3.9	3.8	3.9	3.8
Red Clear	1.6	2.8	1.6	2.8
Walk *	-	-	14	14
Pedestrian Clear	-	-	9	26
Advance Walk *	-	-	7	7
Added Initial *	-	-	-	-
Maximum Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Recall Mode	MAX RECALL	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	8	2	6
DELAY	0.0	0.0	0.0
MXCALL	120	120	120
SEL PED CLR	24	0	8
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.

2 Phase with EVP
Pre-Timed
Hickory City Signal System

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Disconnect and bag existing pedestrian heads numbered P21, P22, P83, and P84.
4. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
5. This intersection features an optical preemption system. Shown locations of optical detectors are conceptual only.
6. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
7. Program phase 4 as a dummy phase for Ring 1.
8. Hickory Signal System Data: Controller Asset #0316.

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	
	Out of Pavement Detector	
	Controller & Cabinet	
□	Junction Box	■
—x-uc—	2-in Underground Conduit	—uc—
N/A	Right of Way	
	Barrier	N/A
→	Directional Arrow	→
	Construction Zone Drums	
	Construction Zone	N/A
	Wedge/Widen	
N/A	Curb Ramp	
	Pedestrian Barricade	N/A
⬡	Type II Signal Pedestal	●
N/A	Curb Ramp	
Ⓐ	No Left Turn Sign (R3-2)	Ⓐ
Ⓑ	No Right Turn Sign (R3-1)	Ⓑ

Signal Upgrade -
Temporary Design 4
(Construction Phase 2, Step 2)

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

HNTB NORTH CAROLINA, P.C.
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(919) 546-8997

Prepared for: Transportation Mobility and Safety Division, Signal Design Section
750 N.Greenfield Pkwy.Garner,NC 27529

0 40
1"=40'

NC 127 SE
at
SR 1692 (1st Ave SE)

Division 12 Catawba County Hickory

PLAN DATE:	October 2023	REVIEWED BY:	N.K. Vlanich
PREPARED BY:	E.E. Tiller	REVIEWED BY:	N.R. Simmons

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 031464 ENGINEER NATASHA R. SIMMONS

DocuSigned by: Natasha R. Simmons 9/6/2024
SIGNATURE DATE

SIG. INVENTORY NO. 12-0954T4