2+6

PROJECT REFERENCE NO. U-5777

3 Phase with EVP Semi-Actuated 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. Phase 1 may be lagged.
- 4. Disconnect and bag existing pedestrian heads numbered P43 and P44.
- 5. Set all detector units to presence mode.
- 6. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- 7. This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
- 8. This intersection features an optical preemption system. Shown locations of optical detectors are conceptual only.
- 9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

LEGEND

Traffic Signal Head

Modified Signal Head

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 2-in Underground Conduit Right of Way Barrier

> Directional Arrow Directional Drill

Construction Zone Drums

Construction Zone

Curb Ramp Pedestrian Barricade No Right Turn Sign (R3-1) No Left Turn Sign (R3-2) "NO TURN ON RED" Sign (R10-11)

DOCUMENT NOT CONSIDERED FINAL

Non-Intrusive Detection Zone

<u>EXISTING</u>

N/A

N/A

N/A

N/A

10. Hickory Signal System Data: Controller Asset #0316.

PROPOSED

N/A

SE-	PAC	2070	L00P	8	k	DETI	ECTOF	RUNI	Γ	IN	ST	AL	LA	\T.	[0]	N	СН	AF	RT	
,	TNDUOTI	VE 1.00	D0					DET	EC1	OR	PR	OGF	AMI	MIN	G					
	INDUCTI	VE LOO	PS							(OPEF	RATI	ON I	MODE	Ε			PS	STA	TUS
						9	TIM	ING	0	1	2	3	4	5	6	7	丟	007		G
ZONE	SIZE (ft)	TURNS	DIST. FROM STOP LINE (ft)	NEW	EXISTING	ASSIGN PHASE	DELAY	EXTEND (STRETCH)	АЕНІСІЕ	PEDESTRIAN	ו כאוו	STOP A	STOP B	PROT/PER LEFT	PROT/PER THROUGH	AND	SWITC	SYSTEM 1	NEW	EXISTING
1A *	6X40	*	0	ı	*	1	15 SEC.	- SEC.	Χ	ı	ı	ı	1	-	-	-	-	1	*	ı

* Multizone Microwave Detection

ZONE

EV PREEMPT PHASES (Medium Priority)	TABL	.E ()F ()PE	RAT	ION			
		PHASE							
	SIGNAL FACE	1 + 6	2 + 6	4	P R E	P R E	PRE	F LASH	
		0	0		3	4	5	H	
	11	ļ	щ≻	- R	- R	-R	—	- R	
PRE 3 (4)	21	R	1	R	R	1	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	1	1	R	R	R	1	R	
PRE 4	P41,P42	DW	DW	W	DW	DW	DW	DRK	
(2)	P61,P62	W	W	DW	DW	DW	DW	DRK	

PHASING	DIAGRAM	DETECTION	LEGEND

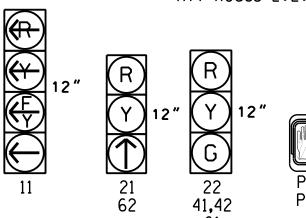
PHASING DIAGRAM

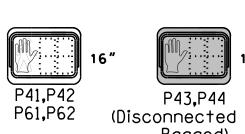
DETECTED MOVEMENT UNDETECTED MOVEMENT (OVERLAP) UNSIGNALIZED MOVEMENT

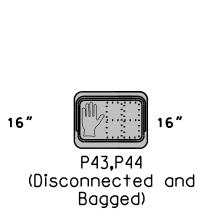
→---- PEDESTRIAN MOVEMENT

SIGNAL FACE I.D.

All Heads L.E.D.







PRE 5 (1+6)

R/W			35 MPH +18	NC 127 SE	P42	M/8 35 MPH -2% Grade 61 11 PRE 4	21 22	35 MPH PA4 PRE 5	Disconnect +1% Grade NC 127 Disco		RIW	RIW	
SE-PAC	C Preemp	ption						2231 (2nd					
TION	PRE 3	PRE 4	PRE 5					1 (2n					
WLK	1	1	1					o d A					
	4	2	1+6					Ave					
						l l		11 == 1					

SE-PA	C 2070	TIMIN	G CHAR	T
		PH	ASE	
FEATURE	1	2	4	6
Min Green *	7	10	7	10
Passage Gap *	2.0	-	-	-
Maximum Green *	40	40	40	40
Yellow Change	3.0	3.8	4.0	3.8
Red Clear	1.8	2.1	1.7	2.1
Walk *	-	-	12	14
Pedestrian Clear	-	-	24	14
Advance Walk *	-	-	5	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

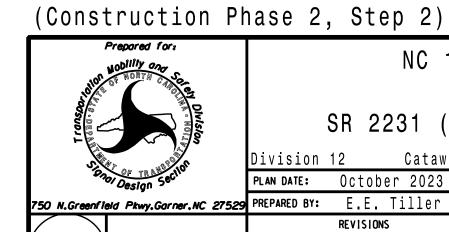
SE-PAC	Preem	ption	
FUNCTION	PRE 3	PRE 4	PRE 5
MIN GRN / WLK	1	1	1
EXIT PHASES	4	2	1+6
DELAY	0.0	0.0	0.0
MXCALL	120	120	120
SEL PED CLR	23	0	12
SEL YEL / 10	0*	0*	0*
SEL RED / 10	0*	0*	0*
TRACK GREEN	0	0	0
TRK PED CLR	0	0	0
TRK YEL / 10	0	0	0
TRK RED / 10	0	0	0
DWELL GRN	7	10	10
RET PED CLR	0	0	0
RET 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.

QE D	AC Droom	ntion					
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	23	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				

HNTB NORTH CAROLINA, P.C. 4000 Center at North Hills St Suite 500 HNTB Raleigh, North Carolina 27609 NC License No: C-1554 (919) 546-8997

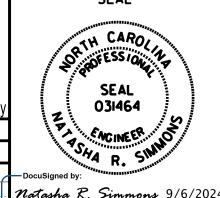


Signal Upgrade -

Temporary Design 4

UNLESS ALL SIGNATURES COMPLETED NC 127 SE SR 2231 (2nd Ave SE)

Division 12 October 2023 REVIEWED BY: N.K. Vlanich 750 N.Greenfield Pkwy.Garner.NC 27529 PREPARED BY: E.E. Tiller REVIEWED BY: N.R. Simmons INIT. DATE



Natasha R. Simmons 9/6/202 SIG. INVENTORY NO. 12-0945T4