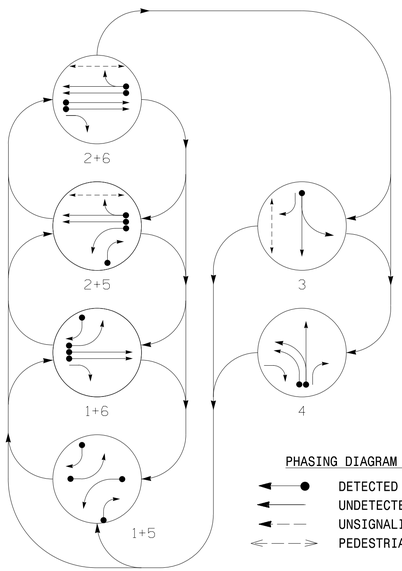
Docusign Envelope ID: EDBF09DE-B24D-4F89-928A-48F3924CA521

PROJECT REFERENCE NO.	SHEET NO.
R-5600	Sig-20.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

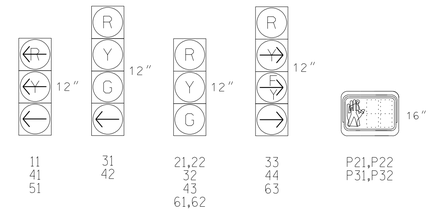
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE 1+5	1+6	2+5	2+6	3	4	FLASH
11	↚	←	↚R	↚R	↚R	↚R	↚R
21,22	R	R	G	G	R	R	R
31	R	R	R	R	G ←	R	R
32	R	R	R	R	G	R	R
33	→	→	R	R	F Y→	R	R
41	↚R	↚R	↚R	↚R	↚R	←	↚R
42	R	R	R	R	R	G ←	R
43	R	R	R	R	R	G	R
44	→	R	→	R	R	→	R
51	↚	↚R	↚	↚R	↚R	↚R	↚R
61,62	R	G	R	G	R	R	R
63	R	F Y→	R	F Y→	R	→	R
P21,P22	DW	DW	W	W	DW	DW	DRK
P31,P32	DW	DW	DW	DW	W	DW	DRK

SIGNAL FACE I.D.

All Heads L.E.D.



MAXTIME DETECTOR INSTALLATION CHART

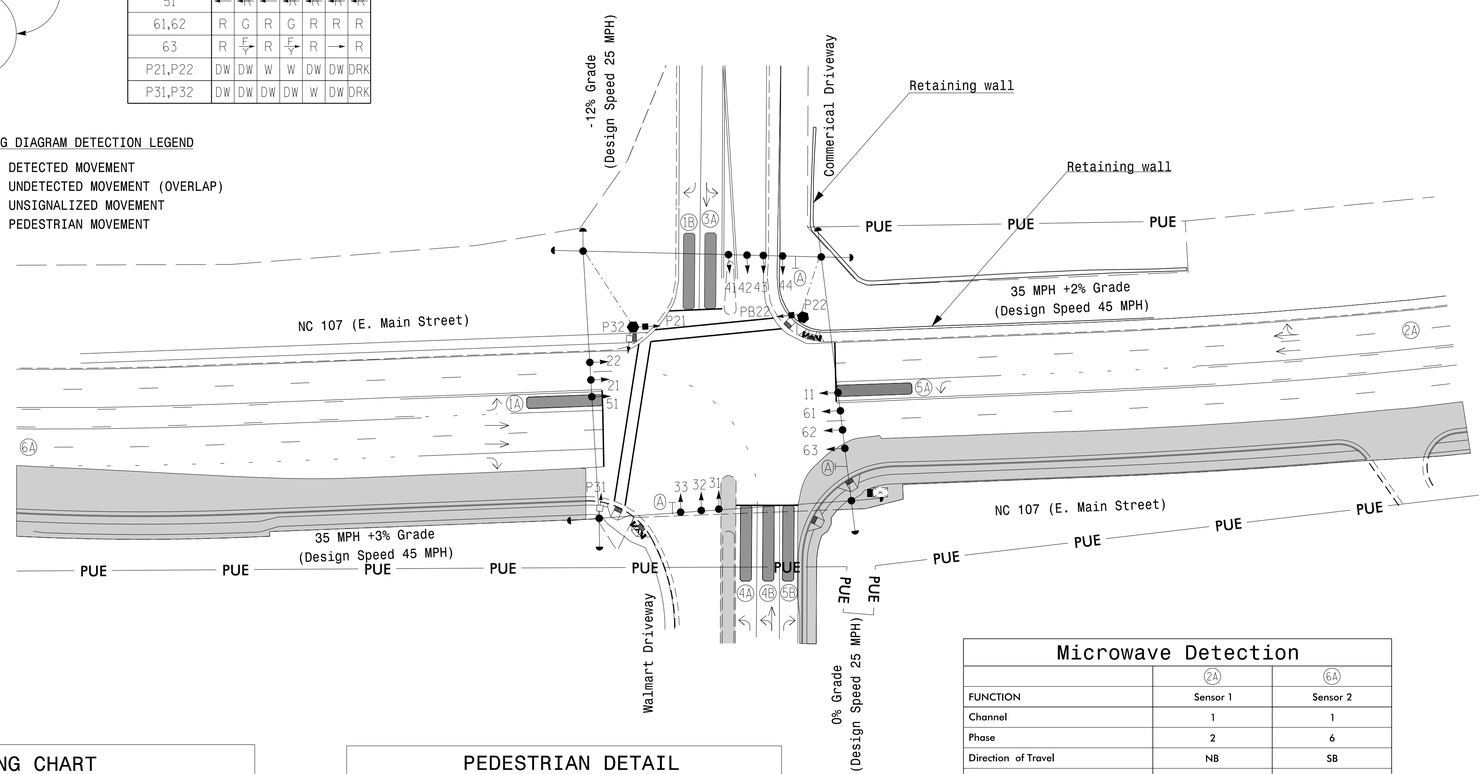
DETECTOR					PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN	NEW CARD
1A	*	0	*	-	1	3.0	-	X	-	X	-	*
1B	*	0	*	-	1	15.0	-	X	-	X	-	*
3A	*	0	*	-	3	-	-	X	-	X	-	*
4A	*	0	*	-	4	-	-	X	-	X	-	*
4B	*	0	*	-	4	-	-	X	-	X	-	*
5A	*	0	*	-	5	3.0	-	X	-	X	-	*
5B	*	0	*	-	5	15.0	-	X	-	X	-	*

* Multi-Zone Microwave Detection Zone

6 Phase Fully Actuated (Time Based Coordination)

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 and/or Phase 5 may be lagged.
4. The order of phase 3 and phase 4 may be reversed.
5. Set all detector units to presence mode.
6. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
7. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
8. To provide a leading pedestrian interval on phase 3 program FYA head numbered 33 to delay for 7 seconds after the start of the phase 3 walk interval. See Electrical Details for programming.
9. This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
10. 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	
	Oversized Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
	Non-Intrusive Detection Zone	
DD	Directional Drill	N/A
	Type II Signal Pedestal	
	Temporary Pedestrian Post with Ped Push Button & Sign	
PUE	Permanent Utility Easement	N/A
	Construction Zone	N/A
(A)	"RIGHT TURN SIGNAL" Sign (R10-10)	(A)

Microwave Detection

	(2A)		(6A)	
FUNCTION	Sensor 1		Sensor 2	
Channel	1		1	
Phase	2		6	
Direction of Travel	NB		SB	
Type	Priority		Priority	
Level	2	QUEUE	2	QUEUE
Detection Zone (ft)	<750	–	<750	–
Range (ft)	600–100	150–100	600–100	150–100
Enable Speed	Y	Y	Y	Y
Speed Range (mph)	35–100	1–35	35–100	1–35
Enable Estimated Time of Arrival	Y	N	Y	N
Estimated Time of Arrival (sec)	2.5–6.5	–	2.5–6.5	–

MAXTIME TIMING CHART

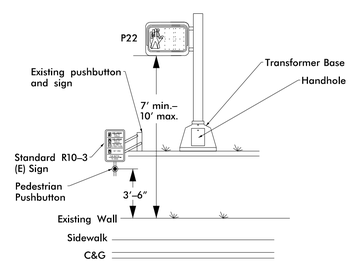
FEATURE	PHASE 1	2	3	4	5	6
Walk *	–	14	14	–	–	–
Ped Clear	–	19	22	–	–	–
Min Green *	7	12	7	7	7	12
Passage *	2.0	2.0	2.0	2.0	2.0	2.0
Max 1 *	20	45	40	20	20	45
Yellow Change	3.0	4.3	4.0	3.2	3.0	4.3
Red Clear	2.8	2.1	2.4	3.1	2.6	2.1
Added Initial *	–	–	–	–	–	–
Maximum Initial *	–	–	–	–	–	–
Time Before Reduction *	–	–	–	–	–	–
Time To Reduce *	–	–	–	–	–	–
Minimum Gap	–	–	–	–	–	–
Advance Walk	–	7	**	–	–	–
Non Lock Detector	X	–	X	X	X	–
Vehicle Recall	–	MIN RECALL	–	–	–	MIN RECALL
Dual Entry	–	–	–	–	–	–

* 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.

** See note 8

PEDESTRIAN DETAIL

Detail for P22 head and pushbutton



Signal Upgrade

Temporary Design 2 - TMP Ph1, S2, Part 2

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared for: Transportation Mobility and Safety Division, Signal Design Section, STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

750 N.Greenfield Pkwy,Garner,NC 27529

NC 107 (E. Main Street) at Walmart Driveway / Commercial Driveway

Division 14 Jackson County Sylva

PLAN DATE: August 2025 REVIEWED BY: ZM Esposito

PREPARED BY: KA Jones REVIEWED BY: BN Groome

SCALE 0 40 1"=40'

REVISIONS | INIT. | DATE

SEAL: NORTH CAROLINA PROFESSIONAL SEAL 052936 ENGINEER BRITTANY N GROOME

Signed by: Brittany Groome 1E09340E1094484... 8/26/2025 DATE

SIG. INVENTORY NO. 14-1022T2

21-AUG-2025 16:04
R:\Traffic Systems\Projects\R-5600_Walmart_Jackson_Co_HDR_US_East_01\Documents\NCDOT_Western_Div_On-Call_ML\NCDOT_6170_R5600_NC170_US23BUS\6.0_CAD_BIM\6.2_Work_In_Progress\R-5600 NCDOT File Structure\Traffic\Signals\Design\Signal Design\14-1022\14102T2_sig_dsn_2025mmdd.dgn
bkjones AT CHA-KJONES