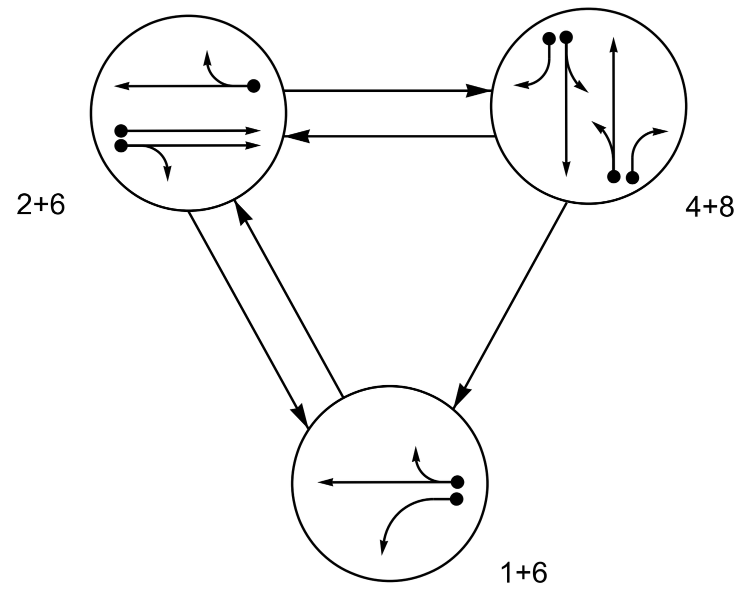
PROJECT REFERENCE NO.	SHEET NO.
I-5716	Sig.11.0

PHASING DIAGRAM



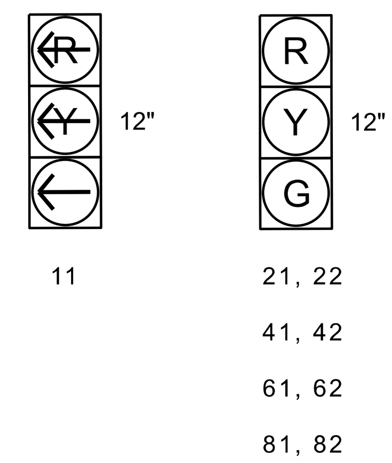
PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION				
SIGNAL FACE	1+6	2+6	4+8	FLASH
11	←	←R	←R	←R
21, 22	R	G	R	R
41, 42	R	R	G	R
61, 62	G	G	R	R
81, 82	R	R	G	R

SIGNAL FACE I.D.

All Heads L.E.D.



SE-PAC 2070 LOOP & DETECTOR UNIT INSTALLATION CHART

LOOP NO.	SIZE (FT)	TURNS	DIST. FROM STOP LINE (FT)	NEW	EXISTING	ASSIGNED PHASE	TIMING: DELAY	TIMING: EXTEND (STRETCH)	0 VEHICLE	1 PEDESTRIAN	2 1 CALL	3 STOP A	4 STOP B	5 PROT/PER LEFT	6 PROT/PER THROUGH	7 AND	SWITCH	SYSTEM LOOPS	STATUS: NEW	STATUS: EXISTING
1A	*	*	0	*	-	1	3.0	-	X	-	-	-	-	-	-	-	-	-	*	-
4A	*	*	0	*	-	4	3.0	-	X	-	-	-	-	-	-	-	-	-	*	-
4B	*	*	0	*	-	4	15.0	-	X	-	-	-	-	-	-	-	-	-	*	-
8A	*	*	0	*	-	8	3.0	-	X	-	-	-	-	-	-	-	-	-	*	-
8B	*	*	0	*	-	8	15.0	-	X	-	-	-	-	-	-	-	-	-	*	-

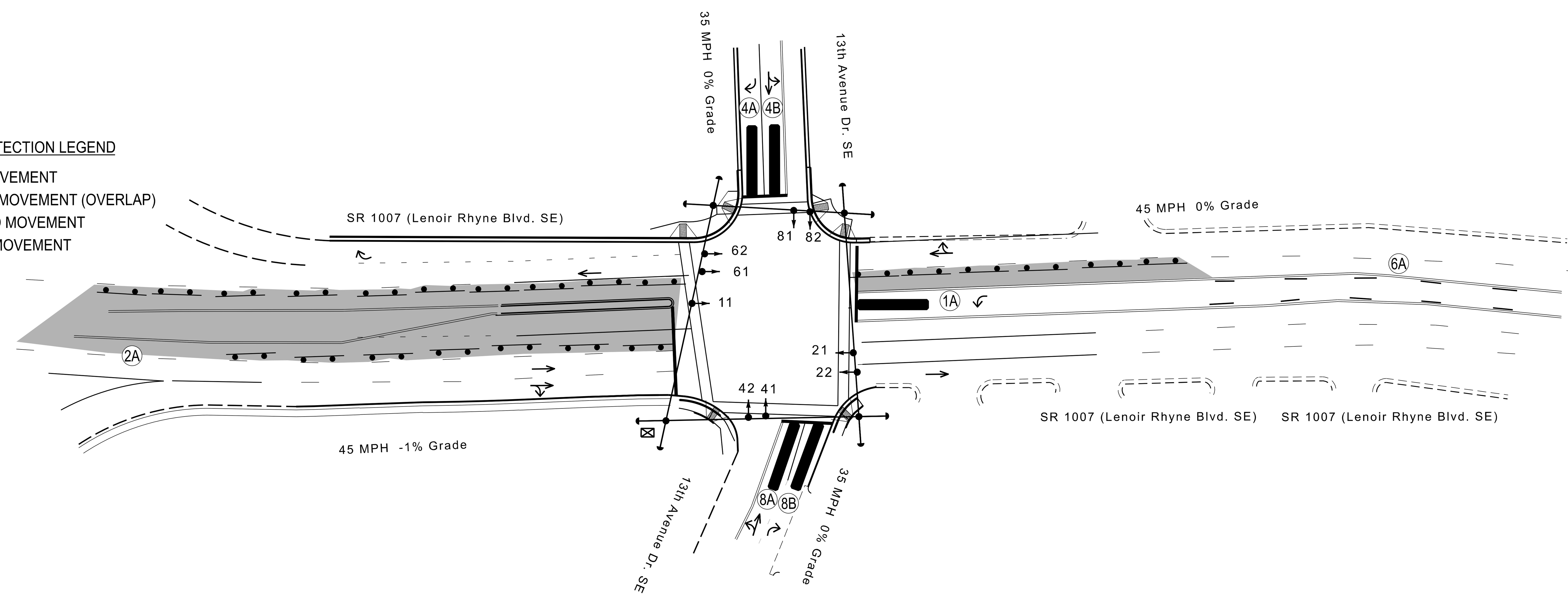
(Columns ASSIGNED PHASE through STATUS: DETECTOR PROGRAMMING; columns 0–7: OPERATION MODE)

* Multi -Zone Microwave Detection

3 Phase
Fully 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. Refer to pavement marking plans for proposal stop bar and crosswalk locations.
4. Phase 1 may be lagged.
5. Reposition existing signal heads 21, 22, 61 and 62.
6. Set all detector units to presence mode.
7. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
8. This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
9. Disconnect and bag existing signal head 51.
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	■→
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
⊠	Controller & Cabinet	
□	Junction Box	■
— ·· X-UC ·· —	2-in Underground Conduit	— ·· UC ·· —
N/A	Right of Way	
→	Directional Arrow	→
	Curb Ramp	
	Construction Zone Drums	
	Non- Intrusive Detection Zone	
	Construction Zone	

SE-PAC 2070 TIMING CHART

FEATURE	PHASE 1	PHASE 2	PHASE 4	PHASE 6	PHASE 8
Min Green*	7	12	7	12	7
Passage Gap*	2.0	2.0	2.0	2.0	2.0
Maximum Green*	15	90	25	90	25
Yellow Change	3.0	4.6	3.8	4.6	3.8
Red Clear	2.6	1.5	2.5	1.5	2.5
Walk*	-	-	-	-	-
Pedestrian Clear	-	-	-	-	-
Added Initial*	-	-	-	-	-
Maximum Initial*	-	-	-	-	-
Time Before Reduction*	-	-	-	-	-
Time To Reduce*	-	-	-	-	-
Minimum Gap	-	-	-	-	-
Recall Mode	-	MIN RECALL	-	MIN RECALL	-
Vehicle Call Memory	NON-LOCK	LOCK	NON-LOCK	LOCK	NON-LOCK
Dual Entry	-	-	ON	-	ON
Simultaneous Gap	ON	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.

Microwave Detection

FUNCTION	SENSOR 1 (2A)			SENSOR 2 (6A)		
Channel	1			1		
Phase	2			6		
Direction of Travel	SB			NB		
Type	Priority			Priority		
Level	1	2	Queue	1	2	Queue
Discovery Zone (ft)	>= 750	<750	-	>= 750	<750	-
Range	900-100	600-100	150-100	900-100	600-100	150-100
Enable Speed	Y	Y	Y	Y	Y	Y
Speed Range(mph)	35-100	35-100	1-35	35-100	35-100	1-35
Enable Estimated Time of Arrival	Y	Y	N	Y	Y	N
Estimated Time of Arrival (sec)	2.5-10.0	2.5-6.5	-	2.5-10.0	2.5-10.0	-

Signal Upgrade Temporary Design 1 (TMP Phase 7D)

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

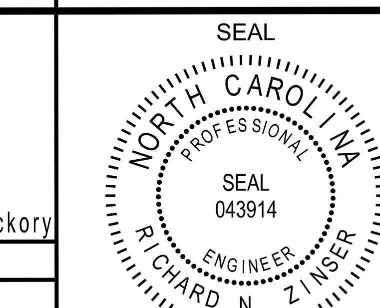
SR 1007 (Lenoir -Rhyne Blvd) at SR 2267 (13th Avenue Drive SE)

Division 12 Catawba County Hickory

PLAN DATE:	January 2026	REVIEWED BY:	R. N. Zinser
PREPARED BY:	Adja Fall	REVIEWED BY:	

SCALE 0 50
1" = 50'

REVISIONS	INIT.	DATE



SEAL

DocuSigned by: R. Nicholas Zinser 04/09/2026
DATE

SIG. INVENTORY NO. 12-1218T1