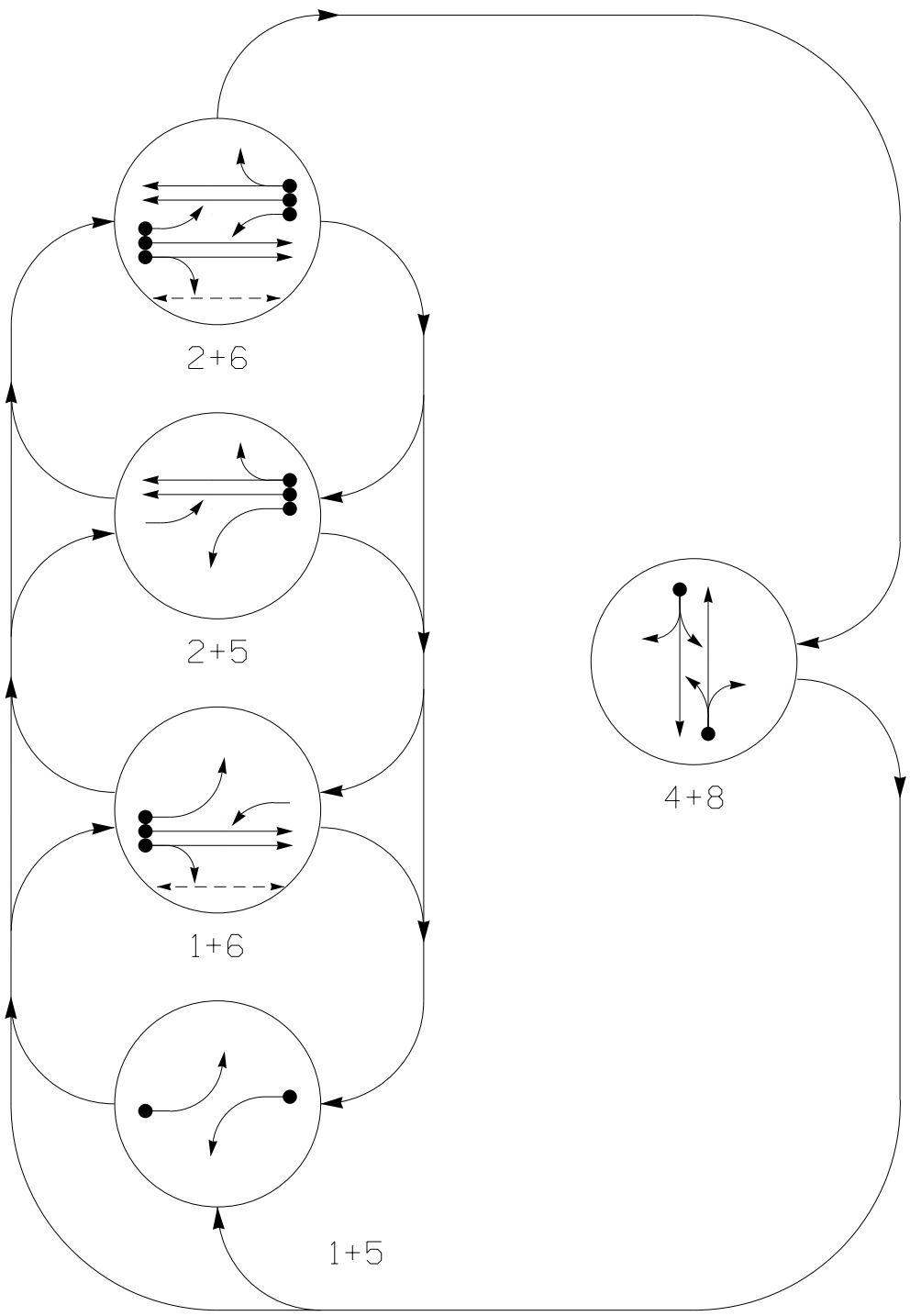


21-AUG-2025 12:16
D:\w\p\dr\usesg01\HQR_US_East_01\Documents\NCDOT\NCDOT_Western_D1_v-Dn-Cat I.M.\NCDOT_6170_R5600_NC170_US23BUS\6-0_CAD_BIM\6.2_Work\In_Progress\R-5600_NCDOT_File_Structure\Traffic\Signal\Signal\Design\Signal_Design\2022mdd.dgn
K.Jones AT CHA-K.JONES

PHASING DIAGRAM



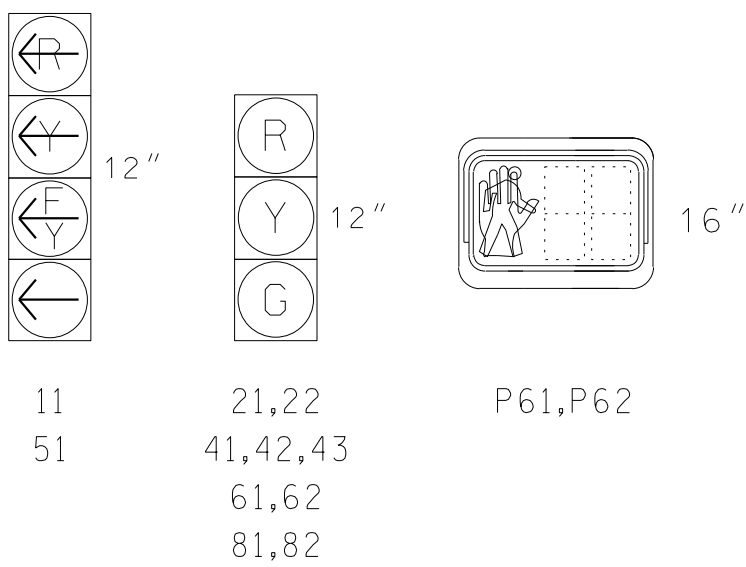
PHASING DIAGRAM DETECTION LEGEND

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

SIGNAL FACE	PHASE				
	1 + 5	1 + 6	2 + 5	2 + 6	4 + 8
11	←	←	←	←	←
21,22	R	R	G	G	R
41,42,43	R	R	R	G	R
51	←	←	←	←	←
61,62	R	G	R	G	R
81,82	R	R	R	R	G
P61, P62	DW	W	DW	W	DW DRK

SIGNAL FACE I.D.

All Heads L.E.D.



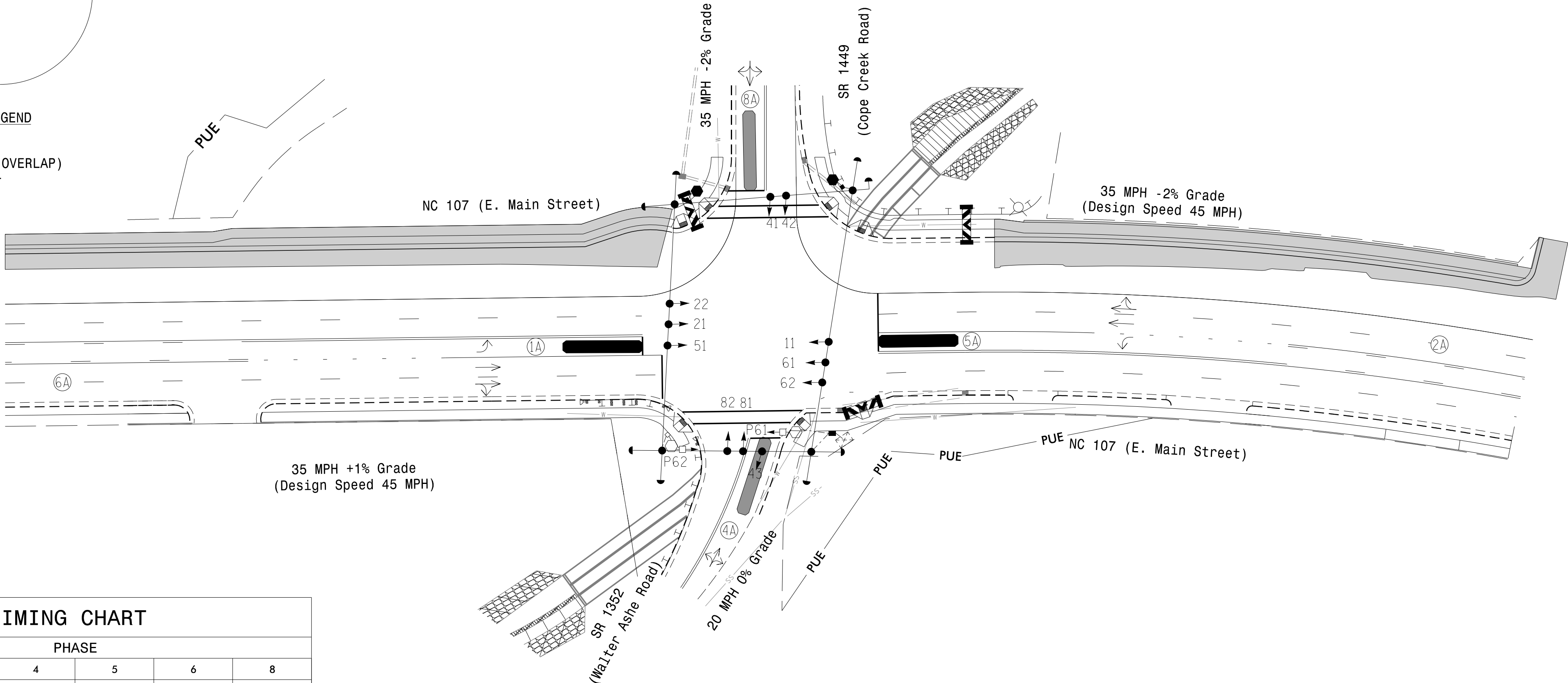
MAXTIME DETECTOR INSTALLATION CHART											
DETECTOR						PROGRAMMING					
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND INITIAL	ADDED INITIAL	CALL DELAY DURING GREEN	NEW CARD
1A	*	0	*	X	1 6	15.0 -	-	X	-	X	-
4A	*	0	*	X	4	5.0	-	X	-	X	-
5A	*	0	*	X	5 2	15.0 -	-	X	-	X	-
8A	*	0	*	X	8	5.0	-	X	-	X	-

*Multi-Zone Microwave Detection Zone

5 Phase
Fully Actuated
(Time Based Coordination)

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 and/or phase 5 may be lagged.
- Reposition existing signal heads 11, 21, 22, 51, 61 and 62.
- Disconnect and bag existing pedestrian heads and pushbuttons P21 and P22.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "DON'T Walk" time 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.



LEGEND

- | PROPOSED | EXISTING |
|--|----------|
| Traffic Signal Head | N/A |
| Modified Signal Head | N/A |
| Sign | N/A |
| Pedestrian Signal Head With Push Button & Sign | N/A |
| Signal Pole with Guy | N/A |
| Signal Pole with Sidewalk Guy | N/A |
| Inductive Loop Detector | N/A |
| Controller & Cabinet | N/A |
| Junction Box | N/A |
| Oversized Junction Box | N/A |
| 2-in Underground Conduit | N/A |
| Right of Way | N/A |
| Non-Intrusive Detection Zone | N/A |
| Directional Arrow | N/A |
| Directional Drill | N/A |
| Type II Signal Pedestal | N/A |
| PUE | N/A |
| Guardrail | N/A |
| Construction Zone | N/A |
| U/G Sanitary Sewer | N/A |
| U/G Water Line | N/A |
| O/H Pwr. & Util. Lines | N/A |
| Barricade | N/A |

MAXTIME TIMING CHART

FEATURE	PHASE					
	1	2	4	5	6	8
Walk *	-	-	-	-	14	-
Ped Clear	-	-	-	-	14	-
Min Green *	7	12	7	7	12	7
Passage *	3.0	2.0	2.0	2.0	2.0	2.0
Max I *	15	70	20	15	70	20
Yellow Change	3.0	4.7	4.0	3.0	4.7	4.0
Red Clear	3.2	2.4	3.5	2.6	2.4	3.5
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	-	-	X	-	-	X

* 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		Sensor 2	
	2A	6A	2A	6A
Channel	1	1	1	1
Phase	2	6	2	6
Direction of Travel	WB	EB	WB	EB
Type	Priority	Priority	Priority	Priority
Level	2	2	2	2
Detection Zone (ft)	<750	<750	<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	-

Signal Upgrade
Temporary Design 3 - TMP Ph2, S1



	NC 107 (E. Main Street) at SR 1352 (Walter Ashe Road) / SR 1449 (Cope Creek Road)		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
	Division 14 Jackson County Sylva		SEAL	
PLAN DATE: August 2025	REVIEWED BY: ZM Esposito	PREPARED BY: KA Jones	REVIEWED BY: BN Groome	
REVISIONS		INIT.	DATE	
8/26/2025		8/26/2025		SIC. INVENTORY NO. 14-0694T3
1"=40'				