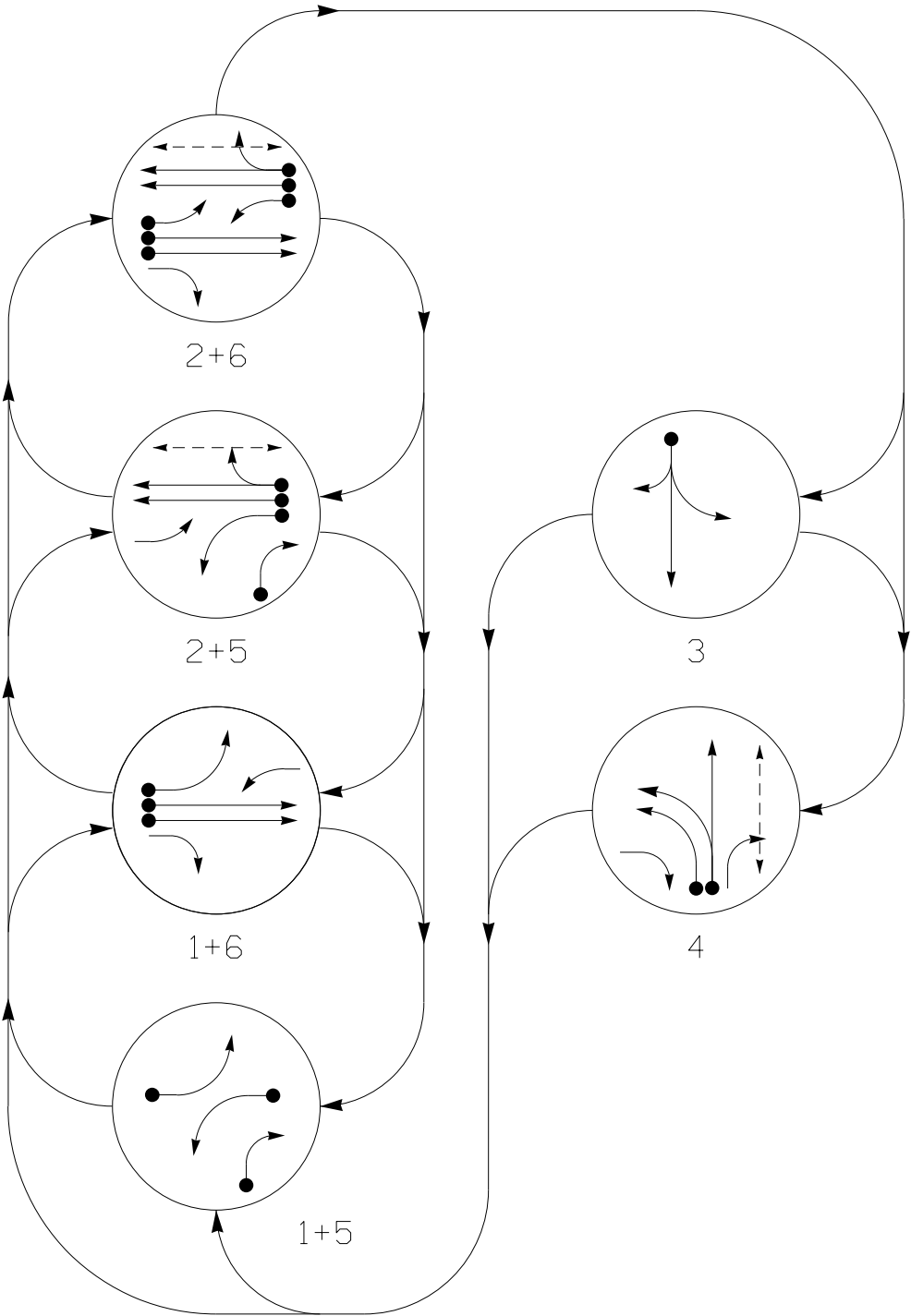


26-AUG-2025, 12:21
D:\w\p\dr\usgs01\HQR_US_Egs+_01\Documents\NCDOT\NCDOT_Western_D1_v-Dn-Cat I_M\NCDOT_6170_US23BUS\6-0_CAD_BIM\6.2_Work_Ln_Progress\R-5600_NCDOT_File_Structure\Traffic\Signal\Design\14-0411\14-0411T2_slg_dsn.2025mdd.dgn
Fernando Vazquez AT CHA-FAZ06EZ

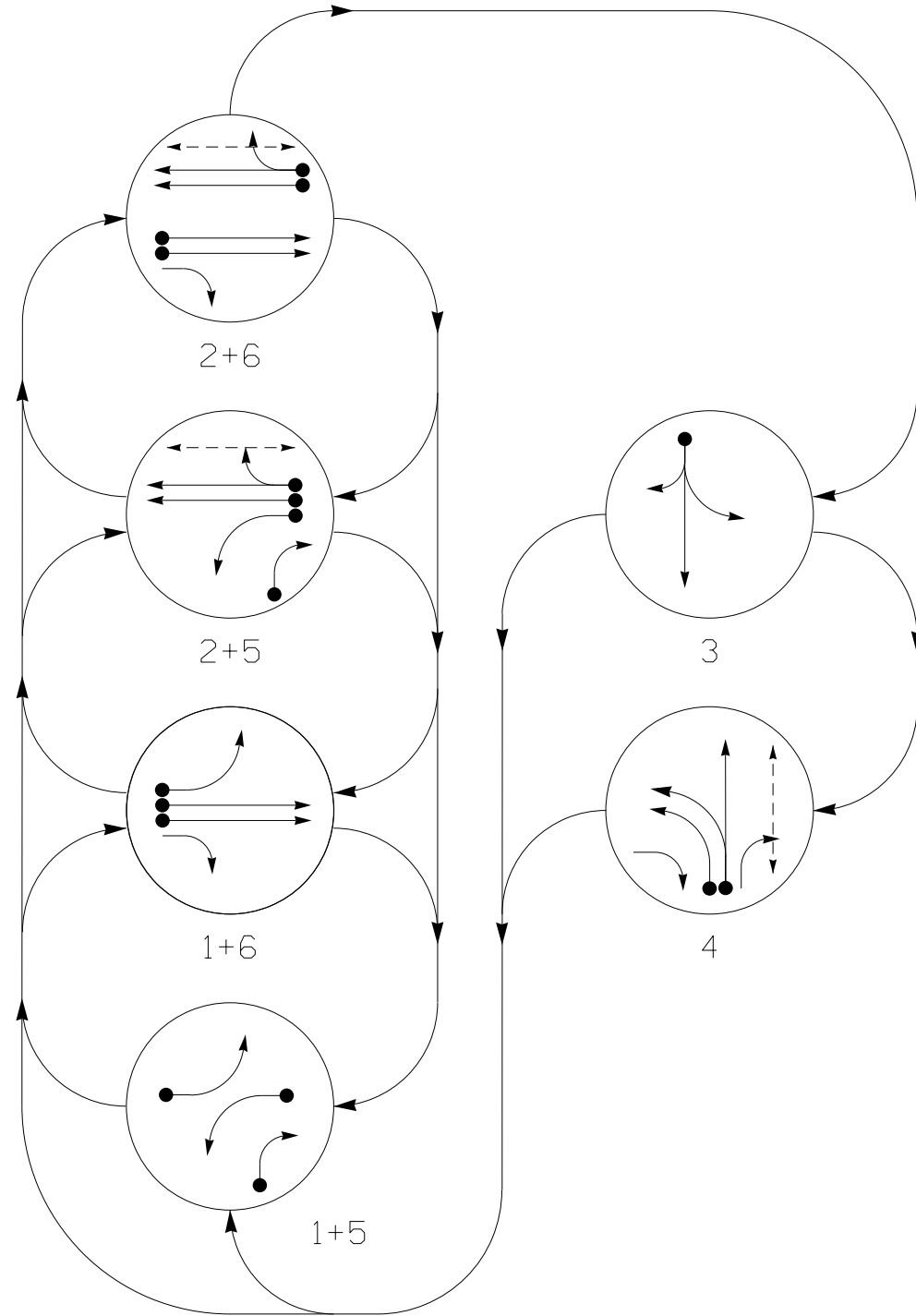
DEFAULT PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

ALTERNATE PHASING DIAGRAM



DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE					
	1 + 5	1 + 6	2 + 5	2 + 6	3	4
11	←	←	←	←	←	←
21,22	R	R	G	G	R	R
31	R	R	R	R	←	←
32,33	R	R	R	R	G	R
41	←	←	←	←	←	←
42	R	R	R	R	←	←
43	R	R	R	R	G	R
44	←	←	←	←	←	←
51	←	←	←	←	←	←
61,62	R	G	R	G	R	R
63	R	←	←	←	←	←
P21, P22	DW	DW	W	W	DW	DRK
P41, P42	DW	DW	DW	DW	W	DRK

ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE					
	1 + 5	1 + 6	2 + 5	2 + 6	3	4
11	←	←	←	←	←	←
21, 22	R	R	G	G	R	R
31	R	R	R	R	←	←
32,33	R	R	R	R	G	R
41	←	←	←	←	←	←
42	R	R	R	R	←	←
43	R	R	R	R	G	R
44	←	←	←	←	←	←
51	←	←	←	←	←	←
61,62	R	G	R	G	R	R
63	R	←	←	←	←	←
P21, P22	DW	DW	W	W	DW	DRK
P41, P42	DW	DW	DW	DW	W	DRK

MAXTIME DETECTOR INSTALLATION CHART

DETECTOR				PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	URNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND INITIAL	CALL	NEW CARD
1A	*	0	*	X	1	15.0**	-	X	-	-
3A	*	0	*	X	3	5.0	-	X	-	-
4A	*	0	*	-	4	3.0	-	X	-	-
4B	*	0	*	-	4	-	-	X	-	-
5A	*	0	*	-	5	15.0**	-	X	-	-
5B	*	0	*	-	5	15.0	-	X	-	-

* Multi-Zone Microwave Detection Zone
** Disable delay during Alternate Phase Operation.
Disable Phase call for loop during Alternate Phasing Operation.

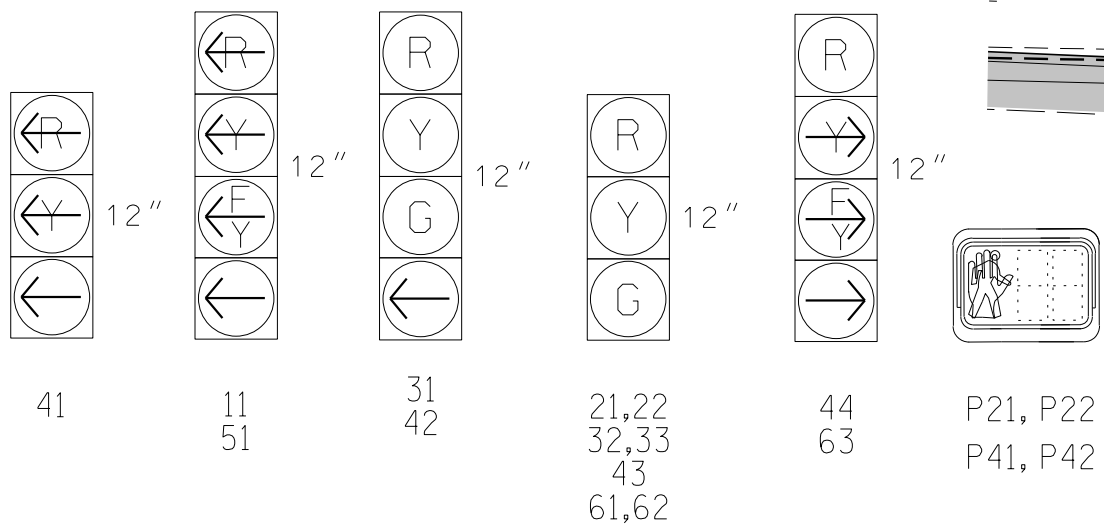
6 Phase Fully Actuated w/ Alternate Phasing Operation (Time Based Coordination)

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.
- The order of phase 3 and phase 4 may be reversed.
- Reposition signal heads numbered 61, 62 and 63.
- Bag and disconnect pedestrian heads and pushbuttons for P61 and P62.
- Unbag and reconnect pushbutton for P42.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- To provide a leading pedestrian interval on phase 4, program FYA heads numbered 44 to delay for 7 seconds after the start of the phase 4 walk interval. See Electrical Details for programming.
- Remove existing Right "Only" sign (R3-5R) on Southbound approach.
- The Division Traffic Engineer will determine the hours of use for each phasing plan.
- 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.

SIGNAL FACE I.D.

All Heads L.E.D.



MAXTIME TIMING CHART

FEATURE	PHASE					
	1	2	3	4	5	6
Walk *	-	14	-	14	-	-
Ped Clear *	-	20	-	23	-	-
Min Green	7	12	7	7	7	12
Passage *	2.0	2.0	2.0	2.0	2.0	2.0
Max 1 *	45	90	30	40	45	90
Yellow Change	3.0	4.6	4.2	3.8	3.0	4.6
Red Clear	2.6	2.3	2.8	2.1	3.1	2.3
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 10.

Microwave Detection

FUNCTION	Sensor 1		Sensor 2	
	2A	6A	2A	6A
Channel	1	1	1	1
Phase	2	6	2	6
Direction of Travel	NB	SB	NB	SB
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 2 - TMP Ph1, S2, Part 1

Plans Prepared By:
DRMP
DRMP, INC.
8210 UNIVERSITY EXECUTIVE PARK DR.
SUITE 200
CHARLOTTE, NC 28262
NC LICENSE NO. F-1524 (704) 549-4260

Prepared for:
TRANSPORTATION MOBILITY AND SAFETY DIVISION
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Signal Design Section

750 N. Greenfield Pkwy, Garner, NC 27529

NC 107 (E Main Street)
at
NC 116 (Webster Road) /
Alexander Street

Division 14 Jackson County Sylva

PLAN DATE: August 2025
REVIEWED BY: ZM Esposito
PREPARED BY: DS Griffith
REVIEWED BY: BN Groome

REVISIONS
INIT. DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
NORTH CAROLINA
PROFESSIONAL ENGINEER
SEAL 052936
BRITANNY N. GROOM
SIGNED BY: Brittany Groom
DATE: 8/26/2025
SIC. INVENTORY NO. 14-0411T2