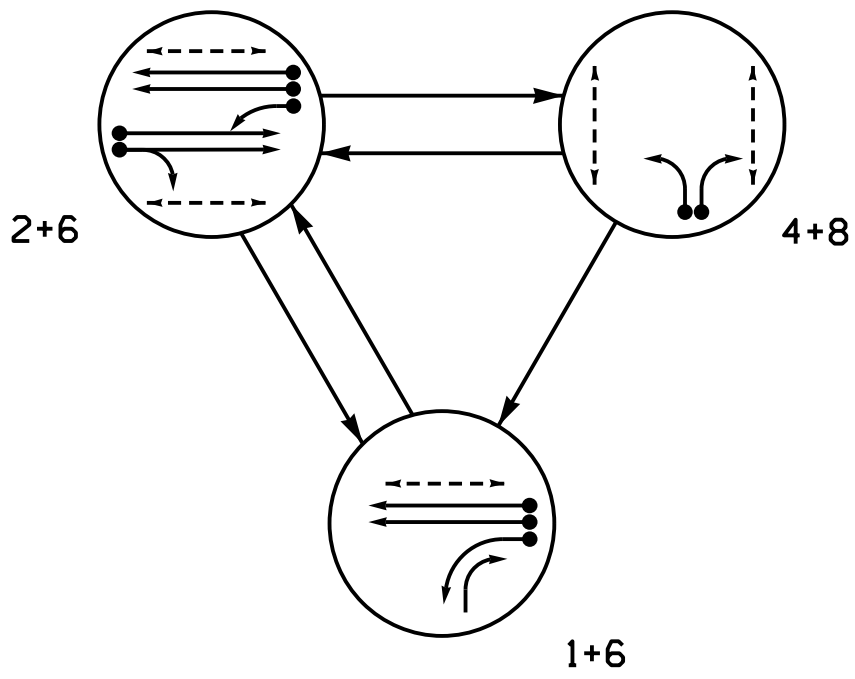


PROJECT REFERENCE NO.	SHEET NO.
U-5906	Sig. 2.0

PHASING DIAGRAM



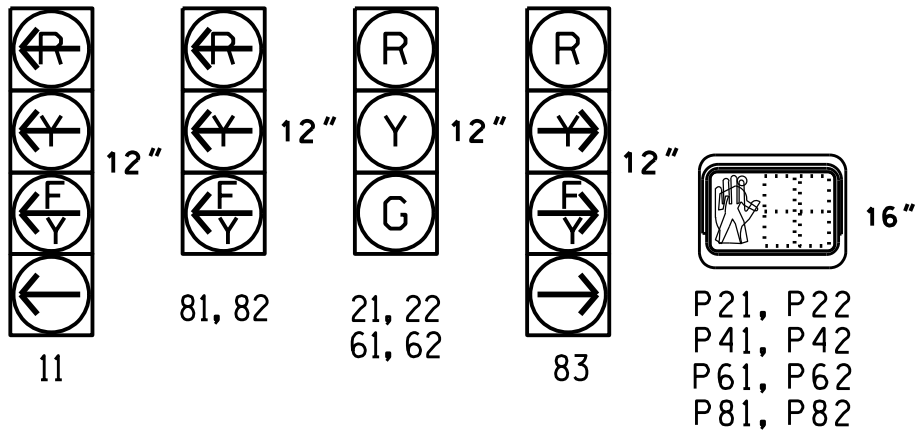
PHASING DIAGRAM DETECTION LEGEND

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

SIGNAL FACE	PHASE			
	1 + 6	2 + 6	4 + 8	FLASH
11	←	←	←	←
21, 22	R	G	R	R
61, 62	G	G	R	R
81, 82	R	R	←	←
83	←	R	←	←
P21, P22	DW	W	DW	DRK
P41, P42	DW	DW	W	DRK
P61, P62	W	W	DW	DRK
P81, P82	DW	DW	W	DRK

SIGNAL FACE I.D.

All Heads L.E.D.



MAXTIME DETECTOR INSTALLATION CHART											
DETECTOR						PROGRAMMING					
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURN	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	NEW CARD
1A	6X40	0	*	*	1 6	15.0	-	X	-	X	*
8A	6X40	0	*	*	8	-	-	X	-	X	*
8B	6X40	0	*	*	8	15.0	-	X	-	X	*

* Multizone Microwave Detection

3 Phase
Fully Actuated
West Catawba Avenue CLS
D10-18 Cornelius

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 may be lagged.
- Disconnect and abandon existing loops 1A, 2A/S09, 2B/S10, 4A, 4B, 5A, 6A/S11, 6B/S12, 8A, and 8B.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Existing conduit locations shown are approximated.
- Set all detector units to presence mode.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Pavement markings are existing.
- Disconnect and bag signal heads 41, 42, and 51.
- Cover pedestrian head P61.

LEGEND

PROPOSED	EXISTING
	N/A
N/A	
	N/A
N/A	

SIGNS

PROPOSED	EXISTING

MAXTIME TIMING CHART					
FEATURE	PHASE				
	1	2	4	6	8
Walk *	-	14	14	14	12
Ped Clear	-	15	21	16	22
Min Green *	7	10	-	10	7
Passage *	2.0	3.0	-	3.0	2.0
Max I *	20	60	-	60	25
Yellow Change	3.0	4.0	-	4.0	3.2
Red Clear	3.1	2.1	-	2.1	2.7
Added Initial *	-	-	-	-	-
Maximum Initial *	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-
Time To Reduce *	-	-	-	-	-
Minimum Gap	-	-	-	-	-
Advance Walk	-	7	7	7	5
Non Lock Detector	X	-	X	-	X
Vehicle Recall	-	MIN RECALL	-	MIN RECALL	-
Dual Entry	-	-	-	-	-

* These values may be field adjusted. Do not adjust Min Green and Passage 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	2A		6A	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Channel	1	1	1	1
Phase	2	2	6	6
Direction of Travel	EB	EB	WB	WB
Type	Priority	Priority	Priority	Priority
Level	2	QUEUE	2	QUEUE
Discovery 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	-

Temporary Signal

Prepared for the Offices of:
Transportation Mobility and Safety Division
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Signal Design Section

750 N. Greenfield Pkwy, Garner, NC 27526

RS&H

NC FIRM LICENSE No: F-0493

1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
(704) 752-0610

SR 5544 (W. Catawba Avenue)
at
One Norman Way
Cornelius

Division 10 Mecklenburg County

PLAN DATE: July 2025
REVIEWED BY: S.G. Haynie

PREPARED BY: A.M. Kollar
REVIEWED BY:

REVISIONS	INIT.	DATE

0 40
1"=40'

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL

NORTH CAROLINA
PROFESSIONAL
SEAL
029531
ENGINEER
STEVEN G. HAYNIE

Steve Haynie
SIGNATURE

7/30/2025
DATE

SIG. INVENTORY NO. 10-1828T1