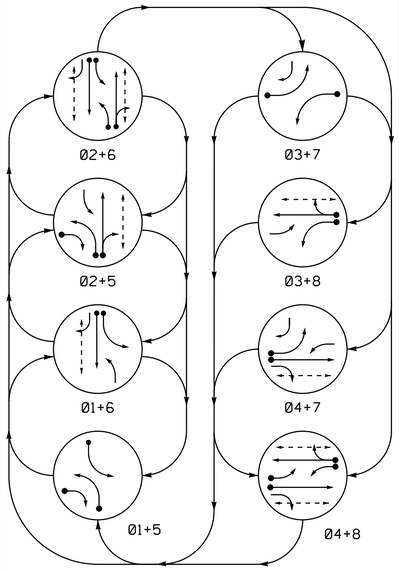
PROJECT REFERENCE NO.	SHEET NO.
U-5112	Sig. 5.0

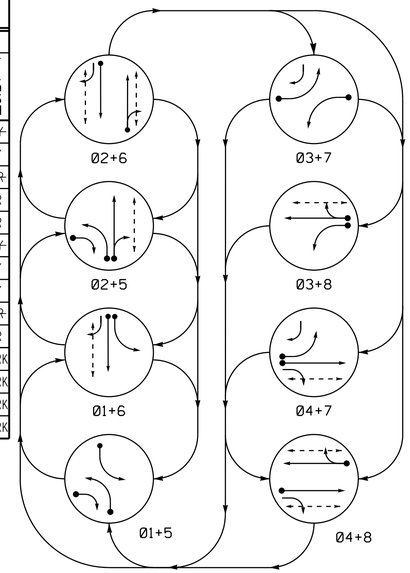
DEFAULT PHASING DIAGRAM



DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8	FLASH
11	←●	←●	←E	←E	←R	←R	←R	←R	←Y
21, 22	R	R	G	G	R	R	R	R	Y
31	→R	→R	→R	→R	←●	←●	→E	→E	→R
41	R	R	R	R	R	R	G	G	R
42	R↓	R	R↓	R	R	R	G	G	R
51	←●	→E	←●	→E	→R	→R	→R	→R	→Y
61	R	G	R	G	R	R	R	R	Y
62	R	G	R	G	R↓	R	R↓	R	Y
71	→R	→R	→R	→R	←●	→E	←●	→E	→R
81, 82	R	R	R	R	R	G	R	G	R
P21, P22	DW	DW	W	W	DW	DW	DW	DW	DRK
P41, P42	DW	DW	DW	DW	DW	DW	W	W	DRK
P61, P62	DW	W	DW	W	DW	DW	DW	DW	DRK
P81, P82	DW	DW	DW	DW	DW	W	DW	W	DRK

ALTERNATE PHASING DIAGRAM



ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8	FLASH
11	←●	←●	→R	→R	→R	→R	→R	→R	→Y
21, 22	R	R	G	G	R	R	R	R	Y
31	→R	→R	→R	→R	←●	←●	→R	→R	→R
41	R	R	R	R	R	R	G	G	R
42	R↓	R	R↓	R	R	R	G	G	R
51	←●	→R	←●	→R	→R	→R	→R	→R	→Y
61	R	G	R	G	R	R	R	R	Y
62	R	G	R	G	R↓	R	R↓	R	Y
71	→R	→R	→R	→R	←●	→R	←●	→R	→R
81, 82	R	R	R	R	R	G	R	G	R
P21, P22	DW	DW	W	W	DW	DW	DW	DW	DRK
P41, P42	DW	DW	DW	DW	DW	DW	W	W	DRK
P61, P62	DW	W	DW	W	DW	DW	DW	DW	DRK
P81, P82	DW	DW	DW	DW	DW	W	DW	W	DRK

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	6X40	0	2-4-2	X	1	15.0*	-	X	-	X	-	X
					6#	-	-	X	-	X	-	X
2A	6X6	70	3	-	2	-	-	X	-	X	-	-
3A	6X40	0	2-4-2	-	3	15.0@	-	X	-	X	-	-
					8#	3.0	-	X	-	X	-	-
4A	6X40	0	2-4-2	-	4	-	-	X	-	X	-	-
5A	6X40	0	2-4-2	X	5	15.0*	-	X	-	X	-	-
					2#	-	-	X	-	X	-	-
5B	6X40	0	2-4-2	-	5	15.0	-	X	-	X	-	-
6A	6X6	70	4	-	6	-	-	X	-	X	-	-
7A	6X40	0	2-4-2	-	7	15.0@	-	X	-	X	-	-
					4#	3.0	-	X	-	X	-	-
8A	6X40	0	2-4-2	-	8	10.0	-	X	-	X	-	-

* Reduce Delay to 0 seconds during Alternate Phasing operation.
@ Reduce Delay to 3 seconds during Alternate Phasing operation.
\# Disable Phase call for loop during Alternate Phasing operation.

8 Phase Fully Actuated w/ Alternate Phasing Operation (Isolated)

NOTES

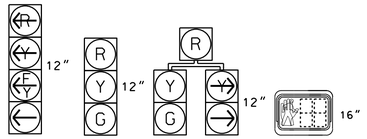
1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024. "Standard Specifications for Roads and Structures" dated January 2024.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 and/or phase 5 may be lagged.
4. Phase 3 and/or phase 7 may be lagged.
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. The Division Traffic Engineer will determine the hours of use for each phasing plan.
9. See Roadway Pavement Marking Plans for pavement marking locations.

PHASING DIAGRAM DETECTION LEGEND

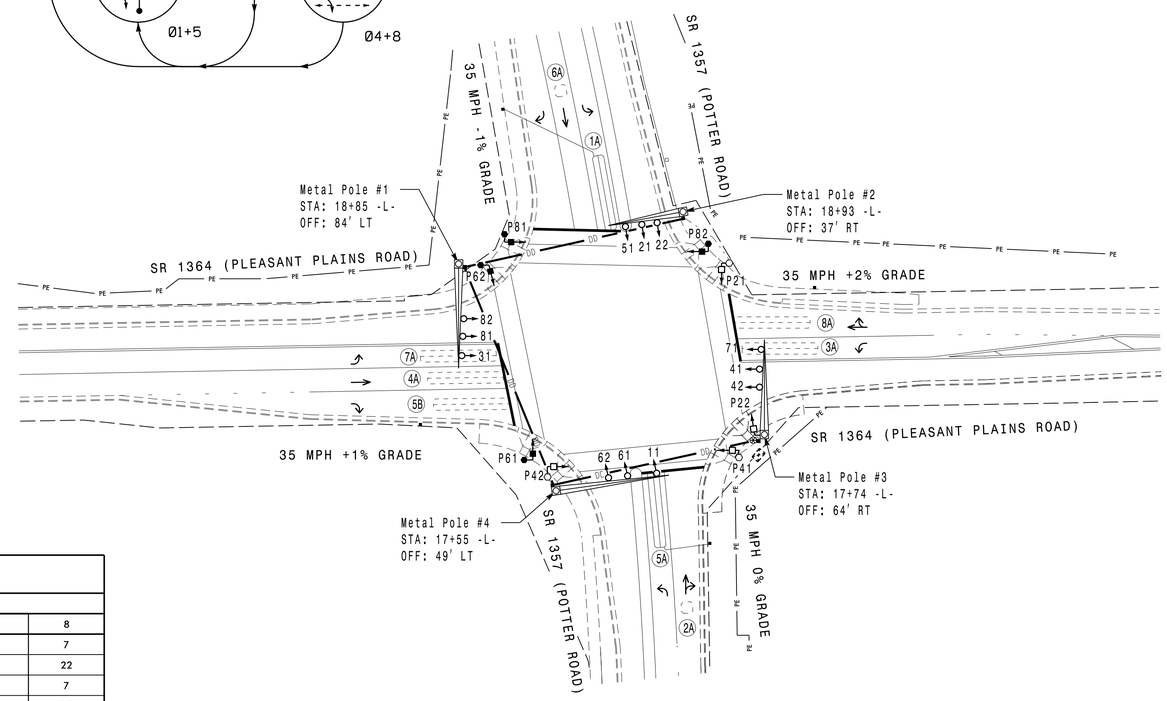
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

SIGNAL FACE I.D.

All Heads L.E.D.



11 31 51 71	21, 22 41 61 81, 82	42 62	P21, P22 P41, P42 P61, P62 P81, P82



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Type I Pushbutton Post	
	Type II Signal Pedestal	
	Pedestrian Signal Head With Push Button & Sign	
	Metal Pole with Mastarm	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
DD	Directional Drill	N/A
N/A	Right of Way	
PE	Permanent Easement	PE
	Directional Arrow	

MAXTIME TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6	7	8
Walk *	–	7	–	7	–	7	–	7
Ped Clear *	–	18	–	18	–	21	–	22
Min Green	7	10	7	7	7	10	7	7
Passage *	2.0	3.0	2.0	2.0	2.0	3.0	2.0	2.0
Max 1 *	30	70	30	30	30	70	30	30
Yellow Change	3.0	3.9	3.0	3.8	3.0	3.9	3.0	3.8
Red Clear	3.2	2.5	2.9	2.7	3.3	2.5	3.5	2.7
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Added Initial *	–	–	–	–	–	–	–	–
Maximum Initial *	–	–	–	–	–	–	–	–
Time Before Reduction *	–	–	–	–	–	–	–	–
Time To Reduce *	–	–	–	–	–	–	–	–
Minimum Gap	–	–	–	–	–	–	–	–
Advance Walk	–	–	–	–	–	–	–	–
Non Lock Detector	X	–	X	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 belower than 4 seconds.

This plan supersedes the plan signed and sealed on 8/11/23.

Signal Upgrade - Final Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared for the Offices of: Transportation Mobility and Safety Division, Signal Design Section, 750 N.Greenfield Pkwy,Garner,NC 27529

SR 1357 (Potter Road)
AT
SR 1364 (Pleasant Plains Road)

Division 10 Union County Stallings

PLAN DATE: December 2023 REVIEWED BY: R.N. Zinser
PREPARED BY: T.A. Kenion REVIEWED BY:

SCALE 0 40' 1"=40'

REVISIONS | INIT. | DATE

SEAL: NORTH CAROLINA PROFESSIONAL SEAL 043914 ENGINEER RICHARD N. ZINSER

DocuSigned by: R. Nicholas Zinser 12/05/2023
C138B0B7A4F7D4BC
DATE

SIG. INVENTORY NO. 10-0696

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