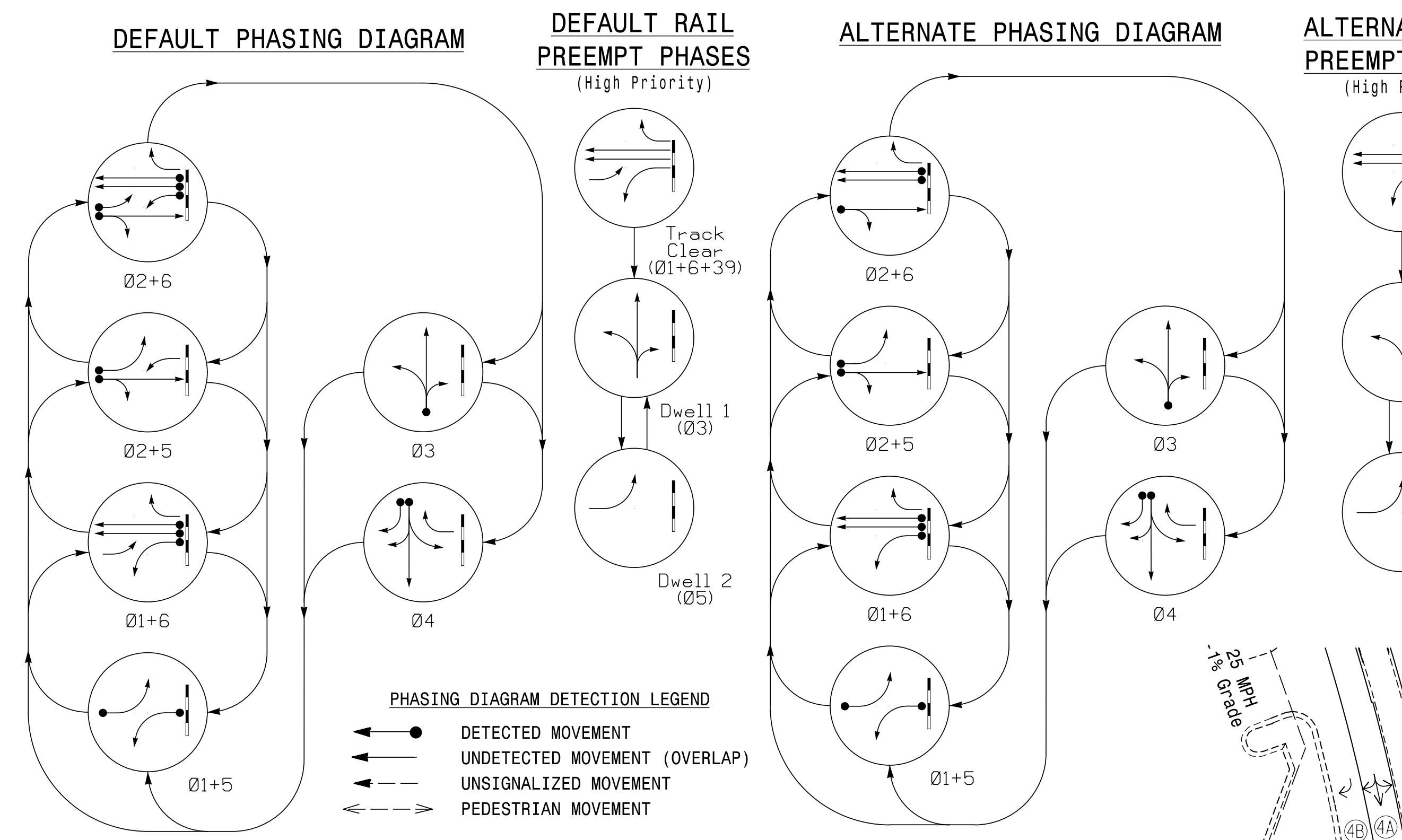


6 Phase
Fully Actuated
w/ Railroad Preemption
#D06-18 Lumberton NC 211 (N. Roberts Avenue)

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- This location contains railroad preemption phasing. Do not program signal for late night flashing operation.
- Phase 1 and/or phase 5 may be lagged.
- The order of phase 3 and phase 4 may be reversed.
- Reposition existing signal heads numbered 22 and 51.
- Program phase 40 to run concurrently with all phases during normal operation. Phase 39 must be incompatible with phase 40 and included as a track clear phase.
- 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.



MAXTIME PREEMPTION CHART

FUNCTION	PRE 1
Type	RAIL ROAD
Exit Phases	2, 6
Delay	0.0
Max Presence	0
Enter Min Green	1
Enter Walk	1
Enter Ped Clear	0
Enter Yellow Change	4.6
Enter Red Clear	3.0
Track Green	36
Track Yellow Change	4.6
Track Red Clear	2.8
Dwell Green	7
Exit Min Green	255 *
Exit Yellow Change	25.5 *
Exit Red Clear	25.5 *
Call Extend Time	1.0
Exit Type	EXIT PHASES
Ped Clear Through Yellow	N
Require All Red Entry	N

* Directs controller to use default phase timing.

This signal was designed for Advanced Preemption.

MAXTIME TIMING CHART

FEATURE	PHASE							
	1	2	3	4	5	6	39	40
Walk *	-	-	-	-	-	-		
Ped Clear *	-	-	-	-	-	-		
Min Green	7	12	7	7	7	12		
Passage *	2.0	2.0	2.0	2.0	2.0	2.0		
Max 1 *	20	90	30	30	20	90		
Yellow Change	3.0	4.6	3.2	3.2	3.0	4.6	4.6	4.6
Red Clear	2.8	1.6	2.6	3.0	2.8	1.6	2.8	3.0
Added Initial *	-	-	-	-	-	-		
Maximum Initial *	-	-	-	-	-	-		
Time Before Reduction *	-	-	-	-	-	-		
Time To Reduce *	-	-	-	-	-	-		
Minimum Gap	-	-	-	-	-	-		
Advance Walk	-	-	-	-	-	-		
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.

MAXTIME DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING			
					CALL PHASE	DELAY TIME	EXTEND TIME	ADDED INITIAL CALL
1A	6X40	0	*	*	1	15**	-	X - X - *
					6#	-	X - X -	*
3A	6X20	0	*	*	3	5	-	X - X - *
4A	6X40	0	*	*	4	5	-	X - X - *
4B	6X40	0	*	*	4	15	-	X - X - *
5A	6X40	0	*	*	5	15**	-	X - X - *
					2#	-	X - X -	*

* Multi-zone Microwave Detection Zone
** Disable Delay During Alternate Phasing
Disable Phase Call for Loop During Alternate Phasing

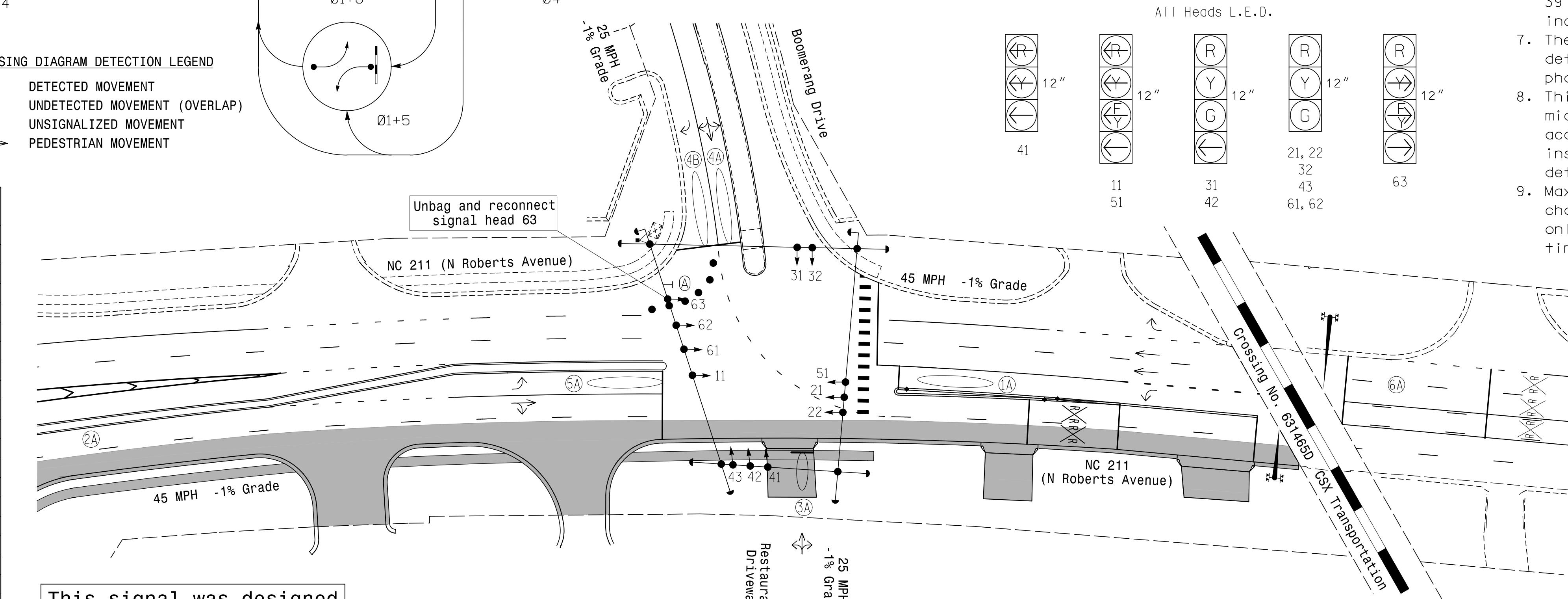
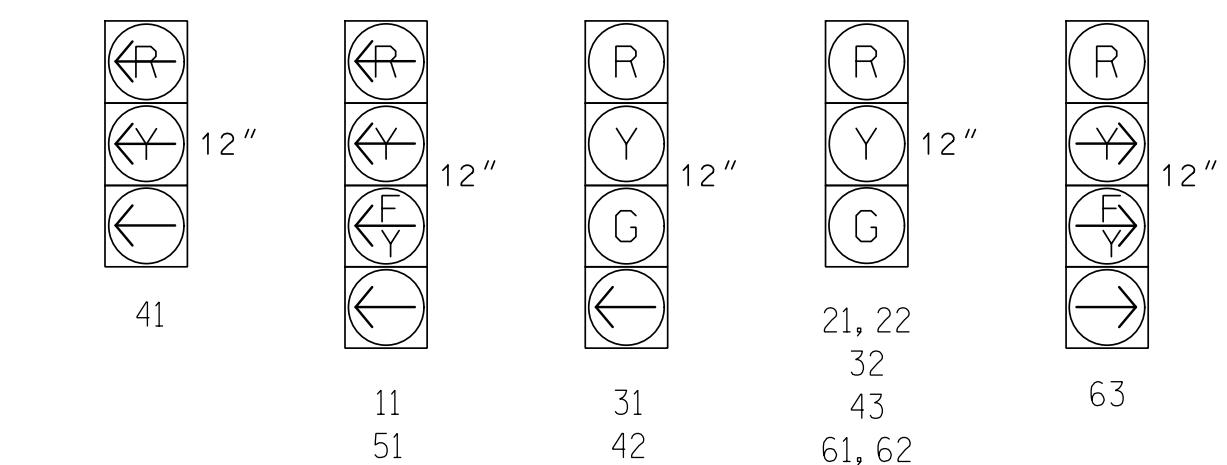
DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE											
	0	1	2	3	4	R	R	D	D	FLASH		
11	-	-	F	F	R	R	R	R	R	R		
21, 22	R	R	G	G	R	R	R	R	R	R		
31	R	R	R	G	R	R	G	R	R	R		
32	R	R	R	G	R	R	G	R	R	R		
41	R	R	R	R	R	R	R	R	R	R		
42	R	R	R	R	R	R	R	R	R	R		
43	R	R	R	R	R	R	R	R	R	R		
51	-	F	F	R	R	F	R	R	R	R		
61, 62	R	G	R	G	R	G	R	R	R	R		
63	R	F	R	F	R	F	R	R	R	R		

ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE											
	0	1	2	3	4	R	R	D	D	FLASH		
11	-	-	R	R	R	R	R	R	R	R		
21, 22	R	R	R	R	R	R	R	R	R	R		
31	R	R	R	R	R	R	R	R	R	R		
32	R	R	R	R	R	R	R	R	R	R		
41	R	R	R	R	R	R	R	R	R	R		
42	R	R	R	R	R	R	R	R	R	R		
43	R	R	R	R	R	R	R	R	R	R		
51	-	R	R	R	R	R	R	R	R	R		
61, 62	R	R	R	R	R	R	R	R	R	R		
63	R	R	R	R	R	R	R	R	R	R		

SIGNAL FACE I.D.
All Heads L.E.D.



LEGEND

PROPOSED	EXISTING
Traffic Signal Head	N/A
Modified Signal Head	N/A
Metal Strain Pole	N/A
Inductive Loop Detector	N/A
Controller & Cabinet	N/A
Junction Box	N/A
2-in Underground Conduit	Directional Drill
	Right of Way
	Directional Arrow
	Railroad Tracks
	Railroad Gate and Flasher
	Microwave Detection Zone
(A)	Right Arrow "ONLY" Sign (R3-5R)
	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
SEAL	SEAL 040329
STV Engineers, Inc.	Trent M. Moody
2151 Hawkins St, Suite 1400	1/27/2026
Charlotte, NC 28203	REVISIONS
(704) 372-1885	INIT. DATE
NC License Number F-0991	DATE
06-1387T3	SIG. INVENTORY NO.

New Installation
Temporary Design 3 - TMP Phase VI, Step 4

Prepared for the Offices of:
TRANSPORTATION MOBILITY and SAFETY DIVISION
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Design Section

NC 211 (N. Roberts Avenue)
at
Boomerang Drive /
Restaurant Driveway
Division 6 Robeson County Lumberton

PLAN DATE: Jan 2026 REVIEWED BY: B.J. Roth-Roffy
PREPARED BY: J.C. Grimm REVIEWED BY: T.M. Moody

REVISIONS INIT. DATE
DATE
SIG. INVENTORY NO. 06-1387T3