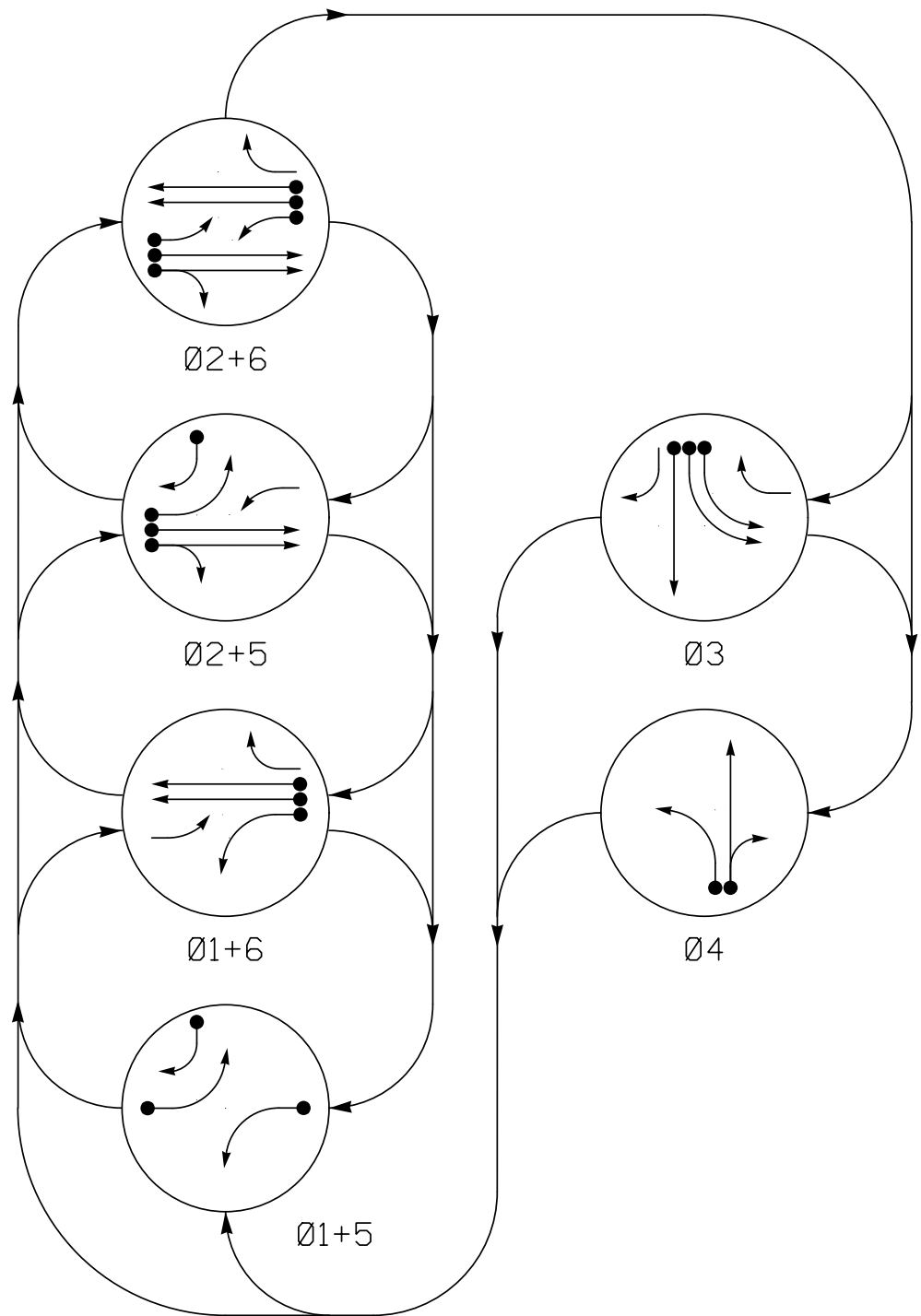


PHASING DIAGRAM



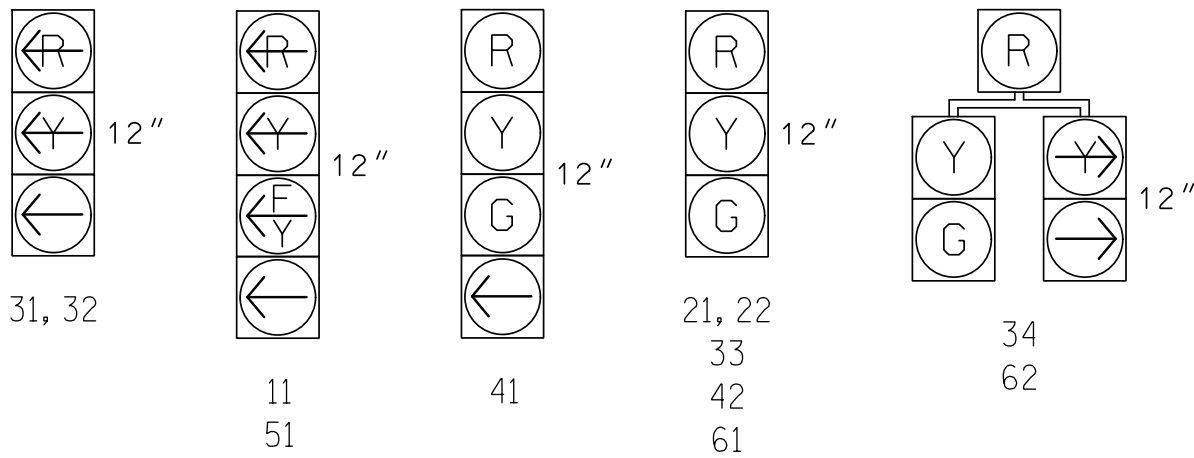
PHASING DIAGRAM DETECTION LEGEND

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

SIGNAL FACE	PHASE						
	01+5	01+6	02+5	02+6	03	04	PEDESTRIAN
II	←	←	←	←	←	←	←
21, 22	R	R	G	G	R	R	R
31, 32	R	R	R	R	←	←	R
33	R	R	R	R	G	R	R
34	R	R	R	R	G	R	R
41	R	R	R	R	R	G	R
42	R	R	R	R	G	R	R
51	←	←	←	←	R	R	R
61	R	G	R	G	R	R	R
62	R	G	R	G	R	R	R

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	ADDED INITIAL	CALL	NEW CARD
1A	6X40	0	*	*	1 6	15 -	-	X -	X -	-	*
3A	6X40	0	*	*	3 -	-	-	X -	X -	-	*
3B	6X40	0	*	*	3 -	-	-	X -	X -	-	*
3C	6X40	0	*	*	3 -	-	-	X -	X -	-	*
4A	6X40	0	*	*	4 3	-	-	X -	X -	-	*
4B	6X40	0	*	*	4 10	-	-	X -	X -	-	*
5A	6X40	0	*	*	5 15	-	-	X -	X -	-	*
5B	6X40	0	*	*	2 5	-	-	X -	X -	-	*

* Multi-zone Microwave Detection Zone

RADAR DETECTION SYSTEM

FUNCTION	SENSOR 1 - 2A	SENSOR 1 - 6A
Channel	1	2
Phase	2	6
Direction of Travel	SB	NB
Detection Zone (ft)	500 - 100	500 - 100
Enable Speed	Y	Y
Speed Range (mph)	35 - 100	35 - 100
Enable Estimated Time of Arrival	Y	Y
Estimated Time of Arrival (sec)	2.5 - 6.5	2.5 - 6.5

6 Phase Fully Actuated Signal System #D06-17 Lumberton US 301 and SR 1997 (Fayetteville Road)

NOTES

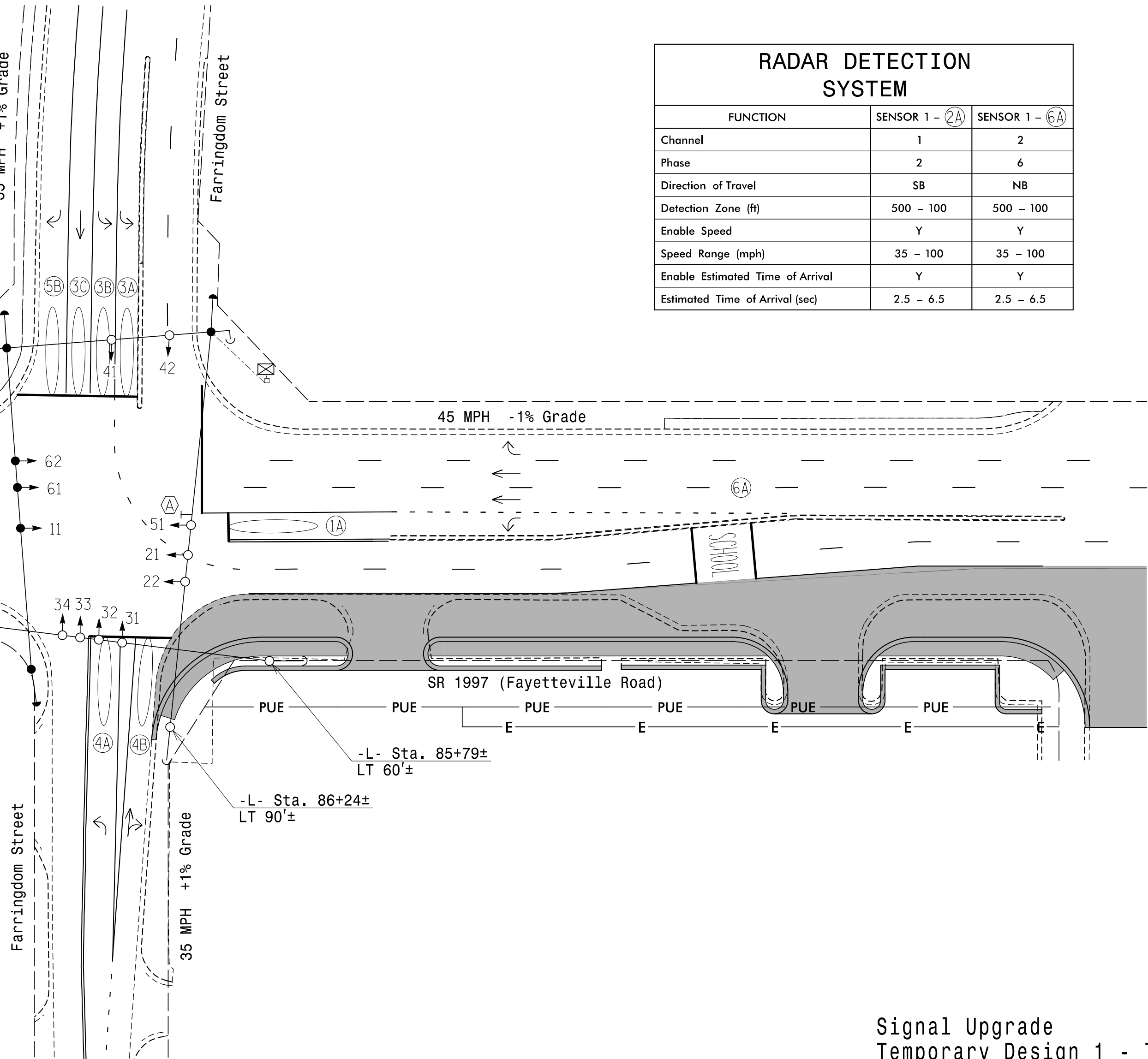
- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- The order of phase 3 and phase 4 may be reversed.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Pavement markings are existing.
- 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 Sign | N/A |
| Pedestrian Signal Head | 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 |
| 2-in Underground Conduit | N/A |
| Right of Way | N/A |
| Directional Arrow | N/A |
| Construction Zone | N/A |
| Microwave Detection Zone | N/A |
| "U-TURN YIELD TO RIGHT TURN" Sign (R10-16) | N/A |

FEATURE	PHASE					
	1	2	3	4	5	6
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	3.8	3.8	3.0	4.6
Red Clear	2.6	1.4	2.1	1.9	2.9	1.4
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.



Signal Upgrade Temporary Design 1 - TMP Phase II, Step 3

stv
STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
(704) 372-1885
NC License Number F-0991

Prepared for the Offices of:
Transportation Mobility and Safety
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Design Section
750 N. Greenfield Pkwy, Garner, NC 27529
SCALE
0 40
1" = 40'

SR 1997 (Fayetteville Road) at Farrington Street

Division 6 Robeson County Lumberton
PLAN DATE: Feb 2025 REVIEWED BY: H.M. Surti
PREPARED BY: J.C. Grimm REVIEWED BY: T.M. Woody

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
RENT M. MOODY
040329
DocuSigned by:
Rent M. Moody
2/10/2025
DATE
SIG. INVENTORY NO. 06-075711