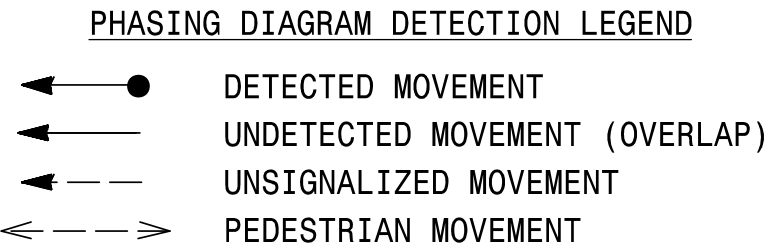
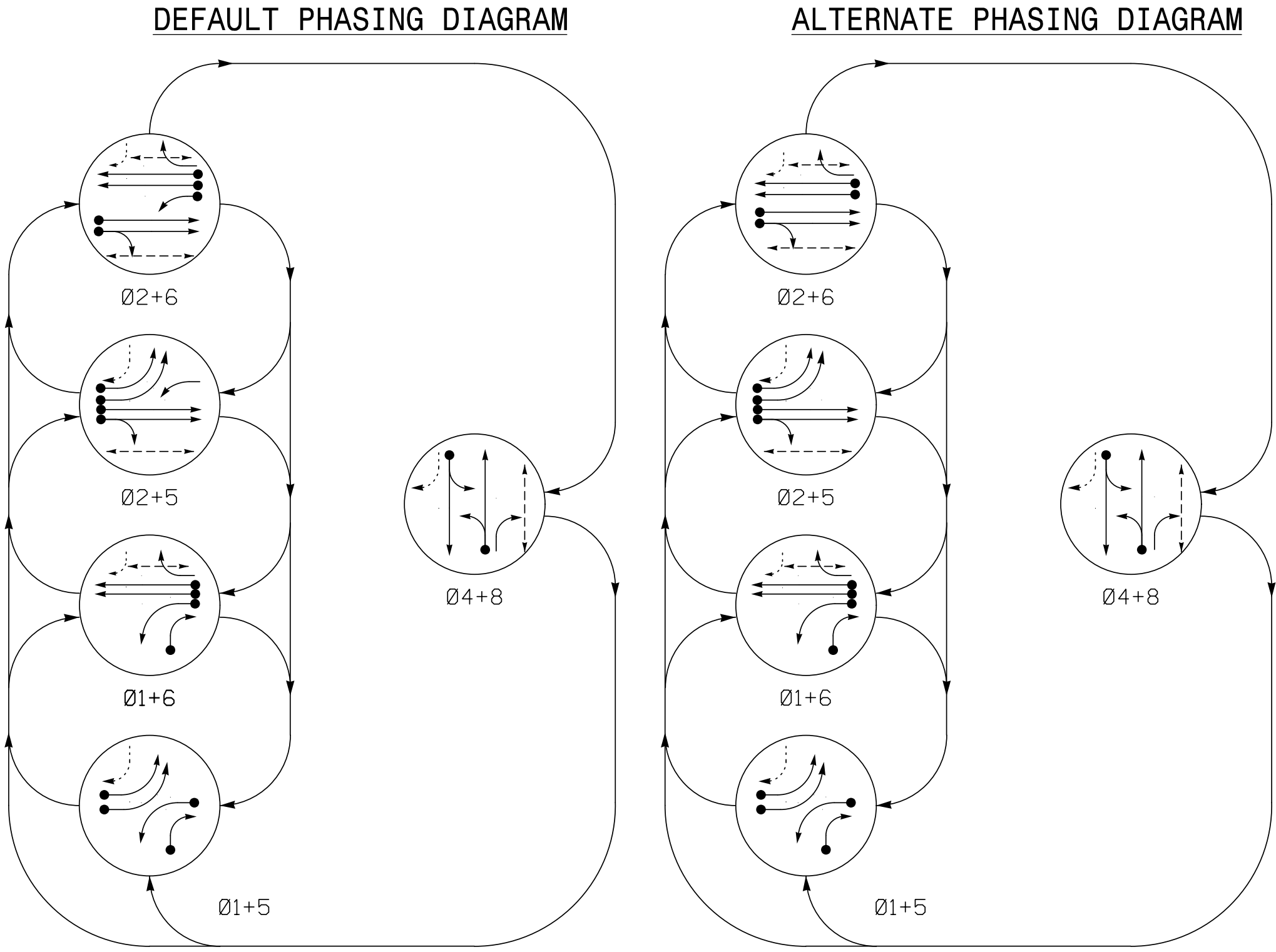


PROJECT REFERENCE NO.	SHEET NO.
U-5797	51g. 20.0

5 Phase
Fully Actuated
#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.
- 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.
- The Divison 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. Coordinate signal system timing values supersede these values.



DEFAULT PHASING TABLE OF OPERATION						
SIGNAL FACE	PHASE					
	Ø 1 + 5	Ø 1 + 6	Ø 2 + 5	Ø 2 + 6	Ø 4 + 8	F E/O D/B
11	←	←	←	←	←	←
21, 22	R	R	G	G	R	R
41, 42, 43	R	R	R	R	G	R
51, 52	←	←	←	←	←	←
61, 62	R	G	R	G	R	R
63	R	←	←	←	R	R
81, 82	R	R	R	R	G	R
83	→	→	R	R	←	R
P21, P22	DW	DW	W	W	DW	DRK
P61, P62	DW	W	DW	W	DW	DRK
P81, P82	DW	DW	DW	DW	W	DRK

ALTERNATE PHASING TABLE OF OPERATION						
SIGNAL FACE	PHASE					
	Ø 1 + 5	Ø 1 + 6	Ø 2 + 5	Ø 2 + 6	Ø 4 + 8	F E/O D/B
11	←	←	←	←	←	←
21, 22	R	R	G	G	R	R
41, 42, 43	R	R	R	R	G	R
51, 52	←	←	←	←	←	←
61, 62	R	G	R	G	R	R
63	R	←	←	←	R	R
81, 82	R	R	R	R	G	R
83	→	→	R	R	←	R
P21, P22	DW	DW	W	W	DW	DRK
P61, P62	DW	W	DW	W	DW	DRK
P81, P82	DW	DW	DW	DW	W	DRK

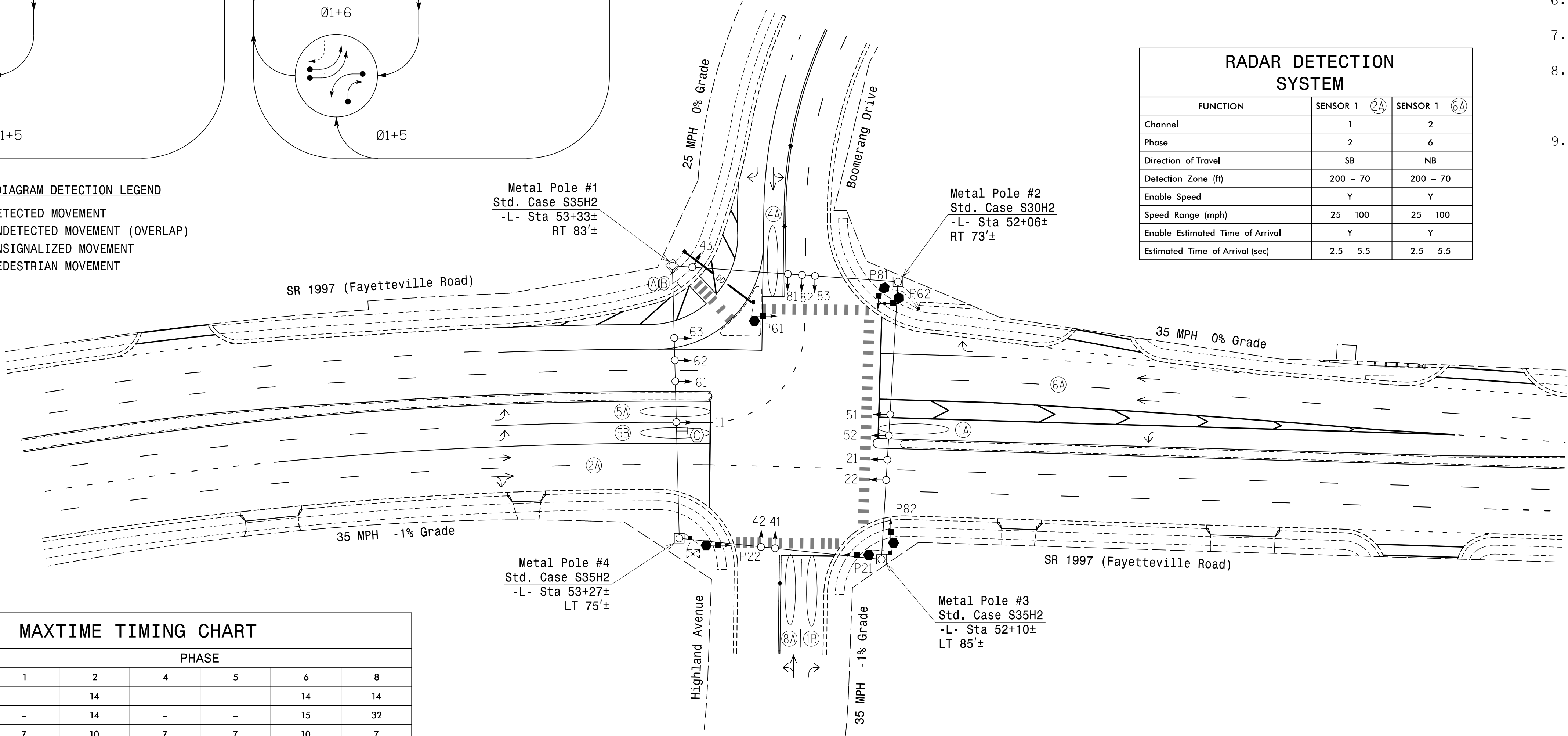
MAXTIME DETECTOR INSTALLATION CHART											
DETECTOR				PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL CALL	DELAY DURING GREEN	NEW CARD
1A	6X40	0	*	*	1	15**	-	X	-	X	*
1B	6X40	0	*	*	6 #	-	-	X	-	X	*
4A	6X40	0	*	*	1	15	-	X	-	X	*
5A	6X40	0	*	*	4	3	-	X	-	X	*
5B	6X40	0	*	*	5	-	-	X	-	X	*
8A	6X40	0	*	*	5	-	-	X	-	X	*
8B	6X40	0	*	*	8	3	-	X	-	X	*

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

RADAR DETECTION SYSTEM		
FUNCTION	SENSOR 1 - (2A)	SENSOR 1 - (6A)
Channel	1	2
Phase	2	6
Direction of Travel	SB	NB
Detection Zone (ft)	200 - 70	200 - 70
Enable Speed	Y	Y
Speed Range (mph)	25 - 100	25 - 100
Enable Estimated Time of Arrival	Y	Y
Estimated Time of Arrival (sec)	2.5 - 5.5	2.5 - 5.5

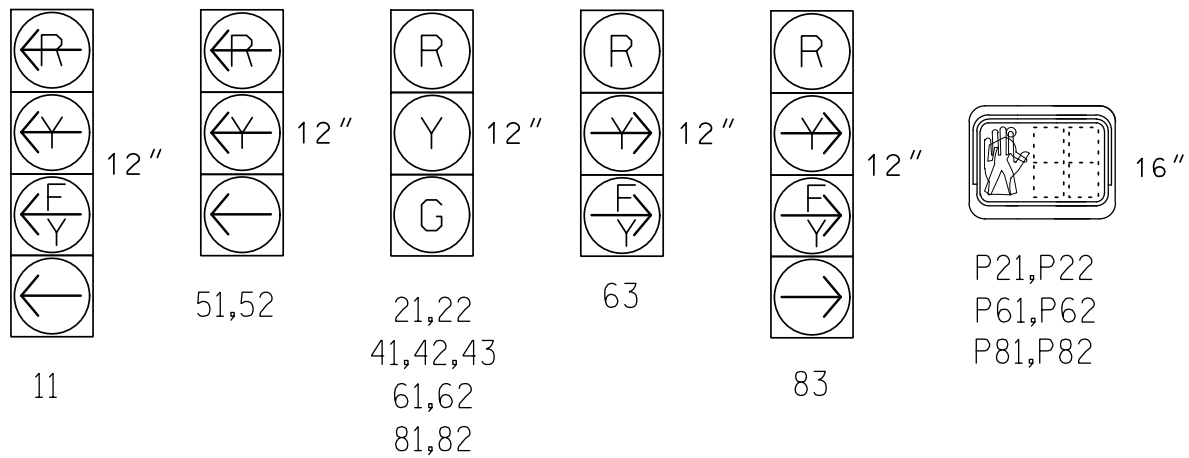
MAXTIME TIMING CHART						
FEATURE	PHASE					
	1	2	4	5	6	8
Walk *	-	14	-	-	14	14
Ped Clear *	-	14	-	-	15	32
Min Green	7	10	7	7	10	7
Passage *	2.0	2.0	2.0	2.0	2.0	2.0
Max 1 *	20	70	30	20	70	30
Yellow Change	3.0	3.9	3.2	3.0	3.9	3.9
Red Clear	3.1	2.3	3.5	3.2	2.3	2.8
Added Initial *	-	-	-	-	-	-
Maximum Initial *	-	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-	-
Time To Reduce *	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-
Advance Walk	-	7	-	-	7	7
Non Lock Detector	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 be lower than 4 seconds.

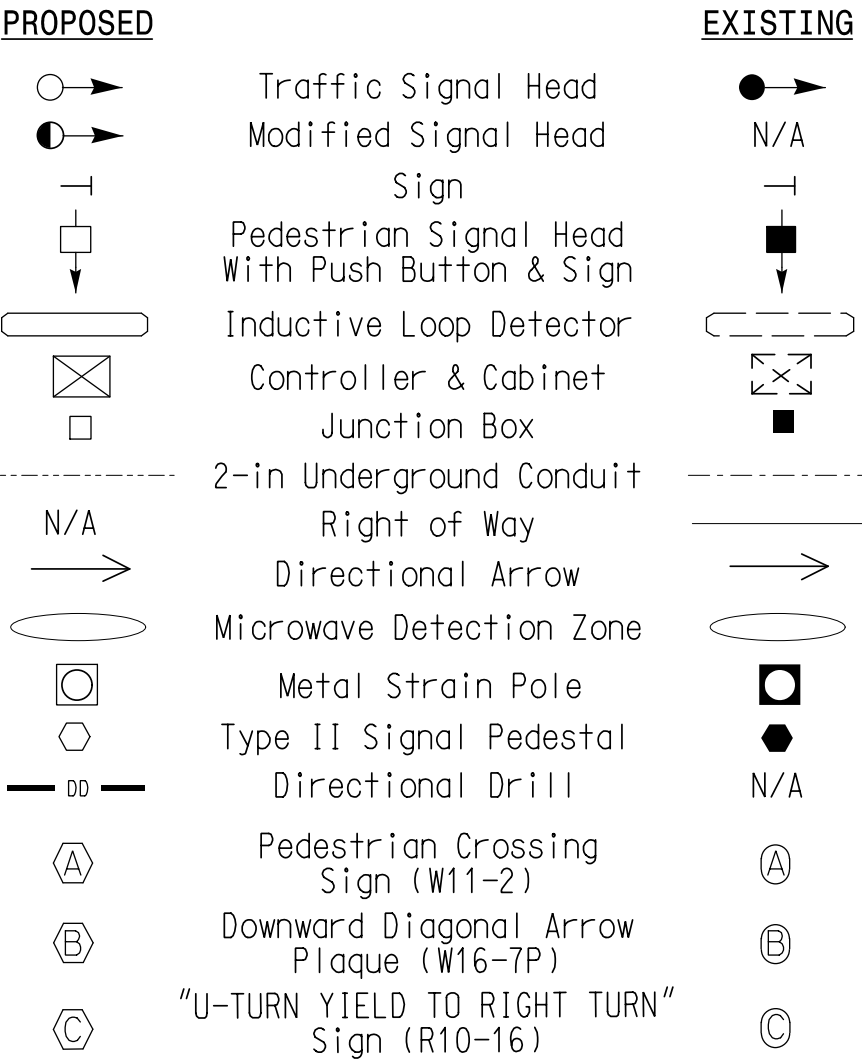


SIGNAL FACE I.D.

All Heads L.E.D.

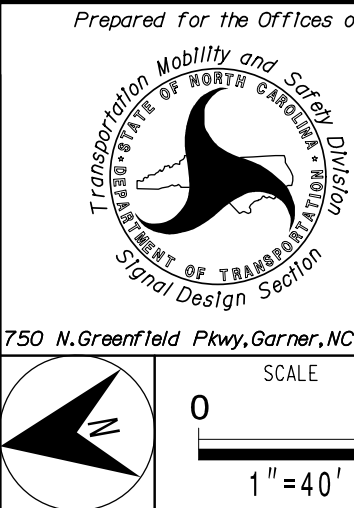


LEGEND



Signal Upgrade - Final Design

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



SR 1997 (Fayetteville Raod)
at
Boomerang Drive/
Highland Avenue
Robeson County Lumberton
Division 6
PLAN DATE: Feb 2025
REVIEWED BY: H.M. Surti
PREPARED BY: J.C. Grimm
REVIEWED BY: T.M. Woody
REVISIONS
INIT. DATE
DATE

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED
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PROFESSIONAL
SEAL
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ENGINEER
TRENT M. MOODY
DocuSigned by:
Trent M. Moody
2/10/2025
DATE
SIC. INVENTORY NO. 06-1388