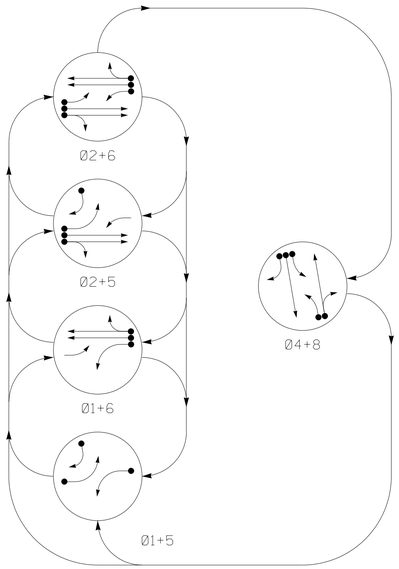
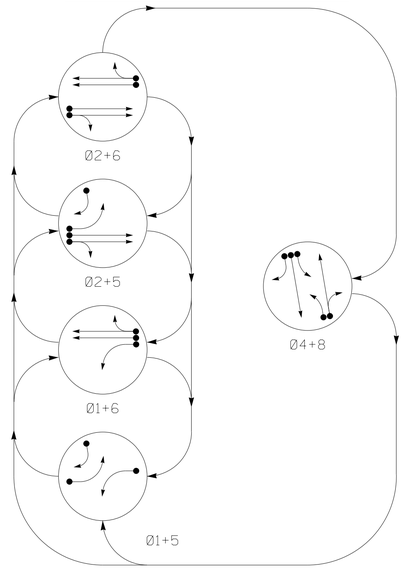
Docusign Envelope ID: CEA204B1-8994-4503-B71A-292DC63130FF

PROJECT REFERENCE NO.	SHEET NO.
U-3609B	SIG-7.0

DEFAULT PHASING DIAGRAM



ALTERNATE PHASING DIAGRAM



ALTERNATE TABLE OF OPERATION

SIGNAL FACE	PHASE Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø4+8	FLASH
11	←-	←-	◄R	◄R	◄R	◄R
21, 22	R	R	G	G	R	R
41	◄R	◄R	◄R	◄R	F Y	◄R
42, 43	R	R	R	R	G	R
44	→-	R	→-	R	→-	R
51	←-	◄R	←-	◄R	◄R	◄R
61, 62	R	G	R	G	R	R
81	◄R	◄R	◄R	◄R	F Y	◄R
82, 83	R	R	R	R	G	R

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	15.0✳	-	X	-	X	-	*
					6#	-	-	X	-	X	-	*
4A	6X40	0	*	*	4	3.0	-	X	-	X	-	*
4B	6X40	0	*	*	4	3.0	-	X	-	X	-	*
5A	6X40	0	*	*	5	15.0✳	-	X	-	X	-	*
					2#	-	-	X	-	X	-	*
5B	8X40	+10	*	*	5	15.0	-	X	-	X	-	*
8A	6X40	0	*	*	8	3.0	-	X	-	X	-	*
8B	6X40	0	*	*	8	10	-	X	-	X	-	*

Disable Phase Call For Loops During Alternate Phasing Operation.

✳ Reduce Delay to 0 Seconds During Alternate Phasing Operation.

* Multi-zone Microwave Detection

5 Phase Fully Actuated (Goldsboro Signal System)

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "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. Set all detector units to presence mode.
4. Phase 1 and/or phase 5 may be lagged.
5. This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
6. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

Multi-zone Microwave Detection

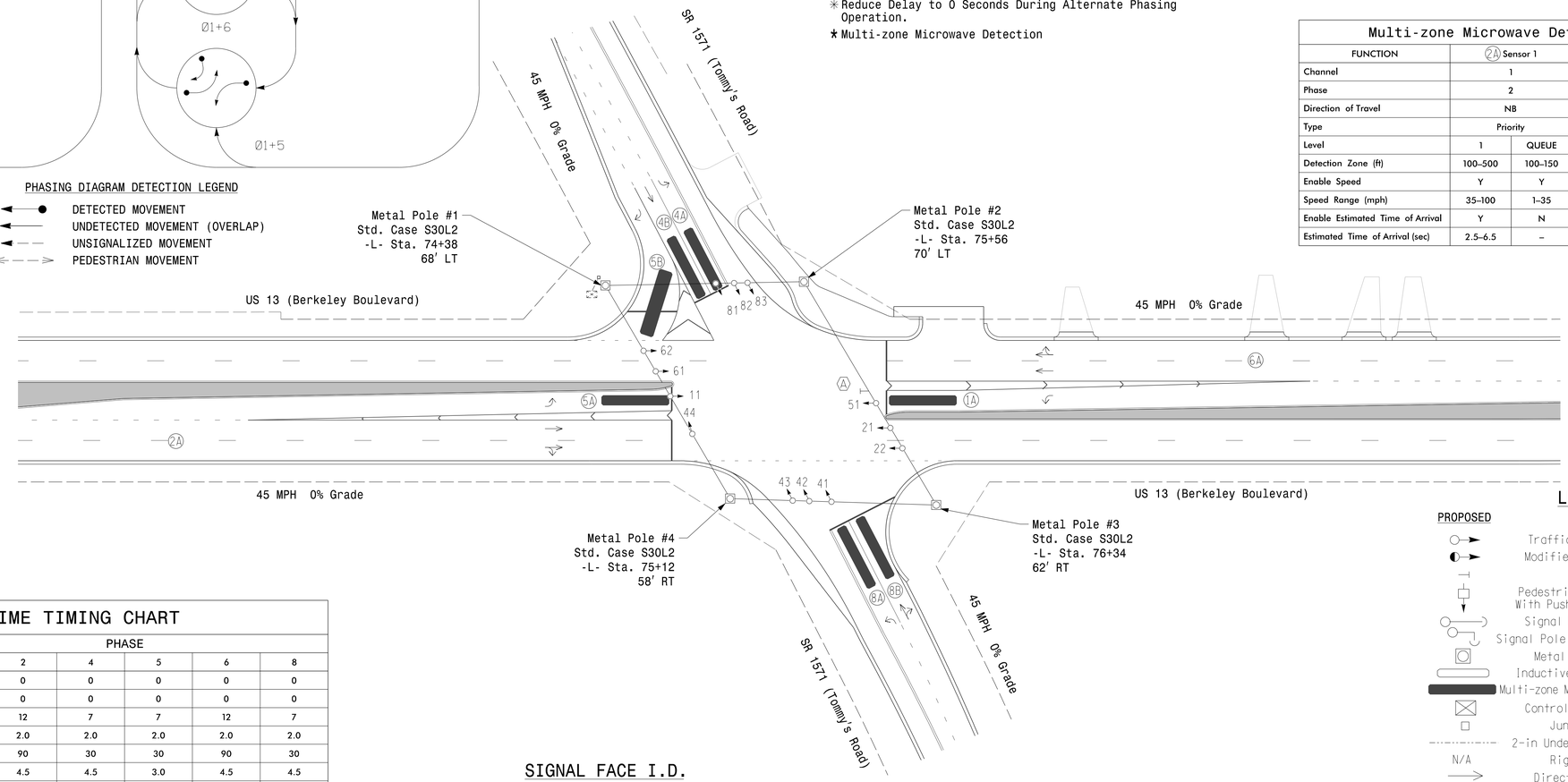
FUNCTION	2A Sensor 1		6A Sensor 2	
Channel	1		1	
Phase	2		6	
Direction of Travel	NB		SB	
Type	Priority		Priority	
Level	1	QUEUE	1	QUEUE
Detection Zone (ft)	100–500	100–150	100–500	100–150
Enable Speed	Y	Y	Y	Y
Speed Range (mph)	35–100	1–35	35–100	1–35
Enable Estimated Time of Arrival	Y	N	Y	N
Estimated Time of Arrival (sec)	2.5–6.5	–	2.5–6.5	–

DEFAULT TABLE OF OPERATION

SIGNAL FACE	PHASE Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø4+8	FLASH
11	←-	←-	F Y	◄R	◄R	◄R
21, 22	R	R	G	G	R	R
41	◄R	◄R	◄R	◄R	F Y	◄R
42, 43	R	R	R	R	G	R
44	→-	R	→-	R	→-	R
51	←-	F Y	←-	F Y	◄R	◄R
61, 62	R	G	R	G	R	R
81	◄R	◄R	◄R	◄R	F Y	◄R
82, 83	R	R	R	R	G	R

PHASING DIAGRAM DETECTION LEGEND

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



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Metal Strain Pole	
	Inductive Loop Detector	
	Multi-zone Microwave Detection	N/A
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
	"U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	

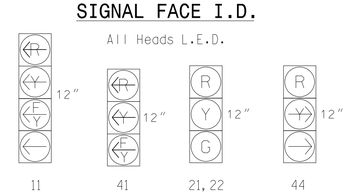
MAXTIME TIMING CHART

FEATURE	PHASE 1	2	4	5	6	8
Walk *	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Min Green *	7	12	7	7	12	7
Passage *	2.0	2.0	2.0	2.0	2.0	2.0
Max 1 *	30	90	30	30	90	30
Yellow Change	3.0	4.5	4.5	3.0	4.5	4.5
Red Clear	2.4	1.6	1.9	2.3	1.6	1.9
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	–	–	X	–	–	X

* 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.

SIGNAL FACE I.D.

All Heads L.E.D.



Signal Upgrade - Final Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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Prepared for the Offices of:
Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

SCALE 0 40
1" = 40'

US 13 (Berkeley Boulevard)
at
SR 1571 (Tommy's Road)

Division 4 Wayne County Goldsboro

PLAN DATE: March 2025	REVIEWED BY:	J. Galloway	
PREPARED BY: J. Hambright	REVIEWED BY:	R M Muncey	

REVISIONS	INIT.	DATE

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029904 JASON P. GALLOWAY

Signed by: Jason Gallaway 8/18/2025
DOCUSIGNED BY: DATE

SIG. INVENTORY NO. 04-0911

$$$$$$$SYSDATE$$$$$$
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User:jgalloway