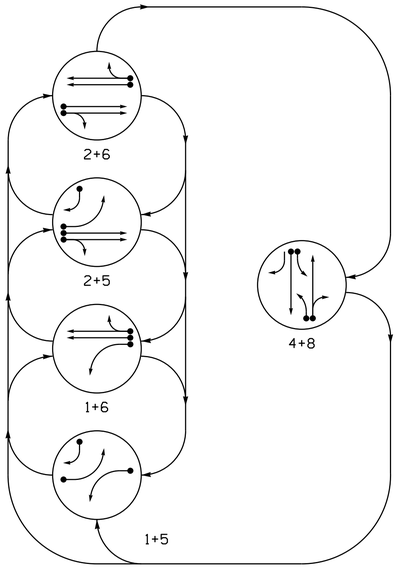
PROJECT REFERENCE NO.	SHEET NO.
U-5302	Sig. 19.0

PHASING DIAGRAM



ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE 1+5	1+6	2+5	2+6	4+8	FLASH
11	~~←~~	~~←~~	~~R~~	~~R~~	~~R~~	~~R~~
21, 22	R	R	G	G	R	R
41	~~R~~	~~R~~	~~R~~	~~R~~	~~Y~~	~~R~~
42	R	R	R	R	G	R
43	R	R	R	R	G	R
51	~~←~~	~~R~~	~~←~~	~~R~~	~~R~~	~~R~~
61, 62	R	G	R	G	R	R
81	~~R~~	~~R~~	~~R~~	~~R~~	~~Y~~	~~R~~
82, 83	R	R	R	R	G	R

SE-PAC 2070 LOOP & DETECTOR UNIT INSTALLATION CHART

INDUCTIVE LOOPS						DETECTOR PROGRAMMING															
							TIMING		OPERATION MODE										STATUS	
ZONE	SIZE (ft)	TURNS	DIST. FROM STOPBAR (ft)	NEW	EXISTING	ASSIGNED PHASE	DELAY	EXTEND (STRETCH)	0 VEHICLE	1 PEDESTRIAN	2 I CALL	3 STOP A	4 STOP B	5 FRONTPER LEFT	6 FRONTPER THROUGH	7 AND	SWITCH	SYSTEM LOOPS	NEW	EXISTING
1A	6X40	*	0	X	-	1	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	*	-
2A	6X6	*	300	X	-	2	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	*
2B	6X6	*	300	X	-	2	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	*
4A	6X40	*	0	X	-	4	3.0 SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	*	-
4B	6X40	*	0	X	-	4	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	*
5A	6X40	*	0	X	-	5	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	*	-
5B	6X40	*	0	X	-	5	15.0 SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	*
6A	6X6	*	300	X	-	6	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	*
6B	6X6	*	300	X	-	6	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	*
8A	6X40	*	0	X	-	8	3.0 SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	*	-
8B	6X40	*	0	X	-	8	10.0 SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	*	-

* Non-intrusive detection zone.

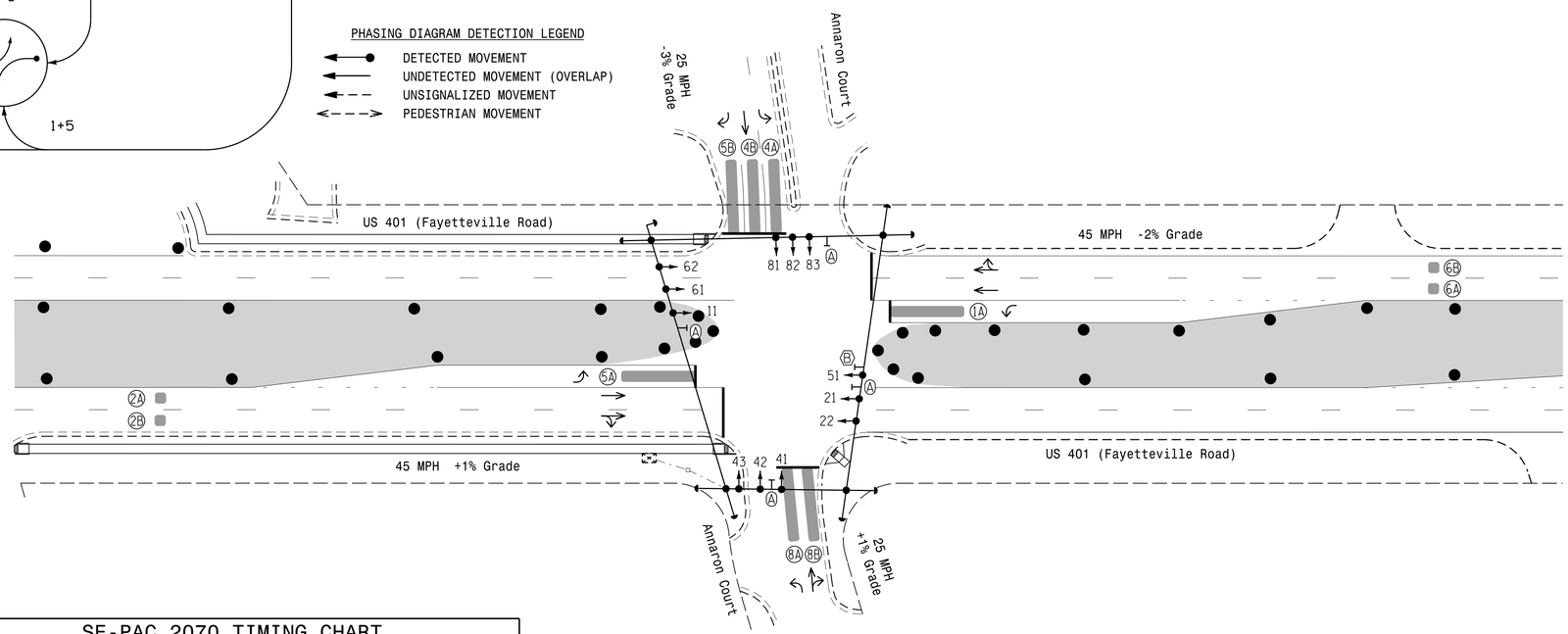
5 Phase
Fully Actuated
(Raleigh Signal System)

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. Phase 1 and/or 5 may be lagged.
4. Reposition existing signal heads numbered 11, 21, 22, 51, 61, and 62.
5. Set all detector units to presence mode.
6. This intersection uses non-intrusive detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
7. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

PHASING DIAGRAM DETECTION LEGEND

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



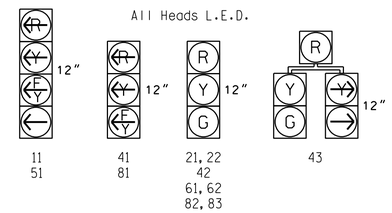
SE-PAC 2070 TIMING CHART

FEATURE	PHASE 1	2	4	5	6	8
Min Green *	7	12	7	7	12	7
Passage Gap *	2.0	6.0	2.0	2.0	6.0	2.0
Maximum Green *	20	75	35	20	75	35
Yellow Change	3.0	4.6	3.3	3.0	4.6	3.3
Red Clear	3.2	1.0	3.2	3.2	1.3	3.2
Walk *	-	-	-	-	-	-
Pedestrian Clear	-	-	-	-	-	-
Added Initial *	-	1.5	-	-	1.5	-
Maximum Initial *	-	34	-	-	34	-
Time Before Reduction *	-	15	-	-	15	-
Time To Reduce *	-	30	-	-	30	-
Minimum Gap	-	3.0	-	-	3.0	-
Recall Mode	-	MIN RECALL	-	-	MIN RECALL	-
Vehicle Call Memory	NON-LOCK	LOCK	NON-LOCK	NON-LOCK	LOCK	NON-LOCK
Dual Entry	-	-	ON	-	-	ON
Simultaneous Gap	ON	ON	ON	ON	ON	ON

* 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

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
	Non-Intrusive Detection Zone	
	Construction Zone	
	Construction Zone Drums	
N/A	Wheelchair Ramp	
A	Street Name Sign (D3-1)	A
B	"U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	B

Signal Upgrade - Temporary Design 2 (TMP Phases III & IV)

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in 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

US 401 (Fayetteville Road)
at
Annaron Court

Division 5 Wake County Raleigh

PLAN DATE: February 2025 REVIEWED BY:
PREPARED BY: J.A. Lohr REVIEWED BY:

SCALE 0 40 1"=40'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 026486 ENGINEER ROBERT J. ZIEMBA

DocuSigned by: Robert J. Ziemba 03/27/2025
DATE

SIG. INVENTORY NO. 05-1714T2

27-MAR-2025 15:00
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JALOHR