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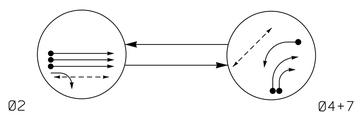
PROJECT REFERENCE NO.	SHEET NO.
U-5748	Sig. 5.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2	PHASE Ø4+7	FLASH
21, 22, 23	G	R	Y
24	F	R	Y
41, 42, 43	R	→	R
71	R	←	R
P21, P22	W	DW	DRK
P41, P42	DW	W	DRK

SE-PAC 2070 LOOP & DETECTOR UNIT INSTALLATION CHART

INDUCTIVE LOOPS						DETECTOR PROGRAMMING														
							TIMING		OPERATION MODE									STATUS	
LOOP NO.	SIZE (ft)	TURNS	DIST. FROM STOPBAR (ft)	NEW	EXISTING	ASSIGNED PHASE	DELAY	EXTEND (STRETCH)	0 VEHICLE	1 PEDESTRIAN	2 1 CALL	3 STOP A	4 STOP B	5 PROT/PER LEFT	6 PROT/PER THROUGH	7 AND	SWITCH SYSTEM LOOPS	NEW	EXISTING
2A	6X6	5	355	X	-	2	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-
2B	6X6	5	355	X	-	2	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-
2C	6X6	5	355	X	-	2	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-
4A	6X40	2-4-2	0	X	-	4	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-
4B	6X40	2-4-2	0	X	-	4	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-
7A	6X40	2-4-2	0	X	-	7	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-

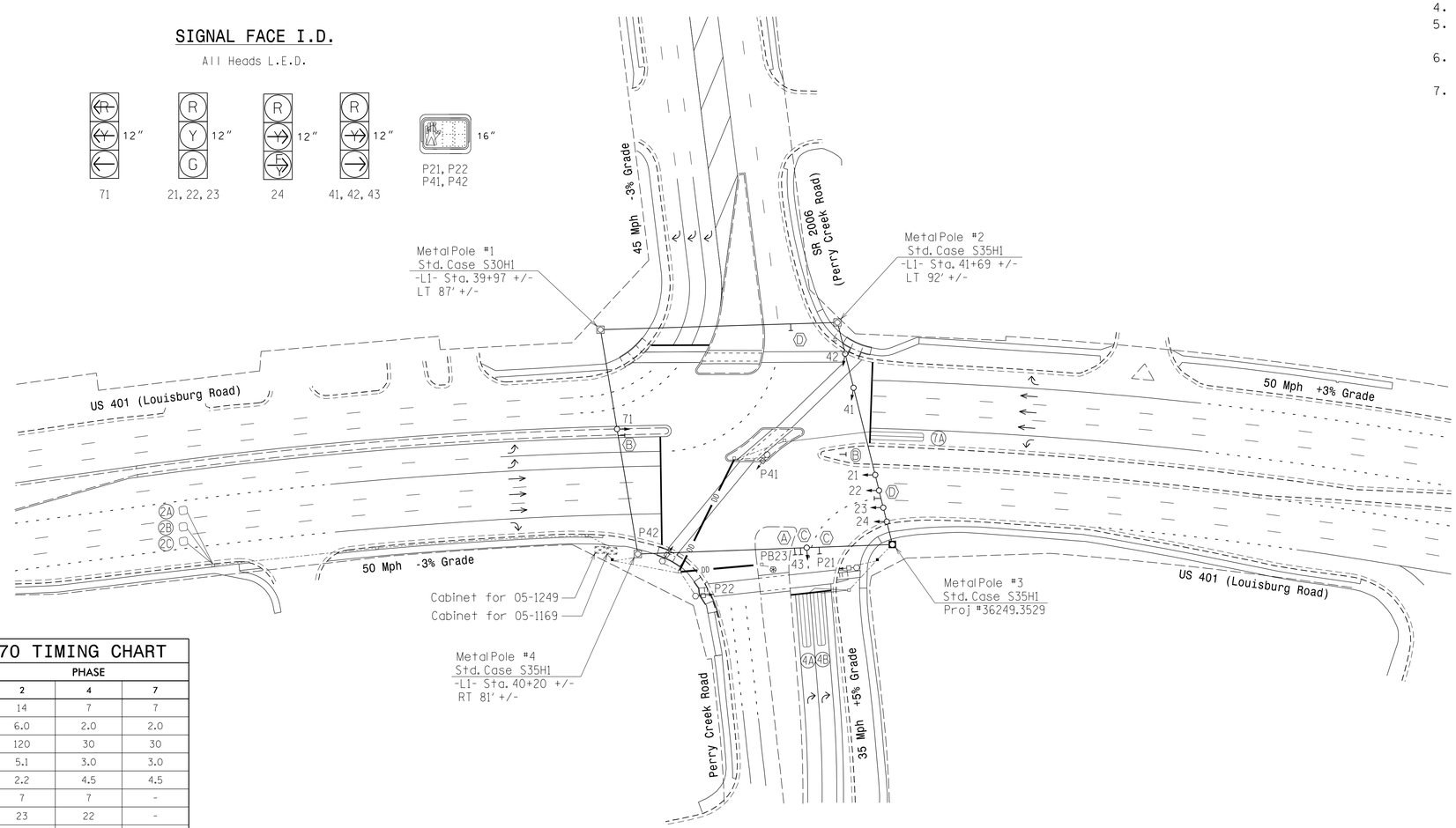
2 Phase
Fully Actuated
(Raleigh Signal System)

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Install backplate for signal head numbered 71.
4. Set all detector units to presence mode.
5. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
6. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
7. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

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	
	Type I Pushbutton Post	
	Type II Signal Pedestal	
N/A	Curb Ramp	
DD	Directional Drill	N/A
	Metal Strain Pole	
A	No Left Turn Sign (R3-2)	A
B	No U-Turn Sign (R3-4)	B
C	"NO TURN ON RED" Sign (R10-11)	C
D	Street Name Sign By Others (D3-1)	D

SE-PAC 2070 TIMING CHART

FEATURE	PHASE 2	PHASE 4	PHASE 7
Min Green *	14	7	7
Passage Gap *	6.0	2.0	2.0
Maximum Green *	120	30	30
Yellow Change	5.1	3.0	3.0
Red Clear	2.2	4.5	4.5
Walk *	7	7	-
Pedestrian Clear	23	22	-
Added Initial *	1.5	-	-
Maximum Initial *	40	-	-
Time Before Reduction *	20	-	-
Time To Reduce *	40	-	-
Minimum Gap	3.0	-	-
Recall Mode	MIN RECALL	-	-
Vehicle Call Memory	LOCK	NON-LOCK	NON-LOCK
Dual Entry	-	ON	ON
Simultaneous Gap	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phase 2 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

Signal Upgrade - Final Design

AECOM
NC Firm License No.: F-0342
5438 Wade Park Boulevard
Suite 200 Raleigh, NC 27607
Phone: 919-461-1100

Prepared for the Offices of:
Transportation Mobility and Safety Division
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

US 401 NB (Louisburg Road) at Perry Creek Road

Division 5 Wake County Raleigh

PLAN DATE:	Jan 2023	REVIEWED BY:	F.A. Campbell
PREPARED BY:	H.M. Surti	REVIEWED BY:	

SCALE 0 50 1"=50'

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 034481 ENGINEER HEMANG M. SURTI

DocuSigned by:
Hemang M. Surti
1/24/2023

SIG. INVENTORY NO. 05-1169

1/24/2023
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michael.covenaugh