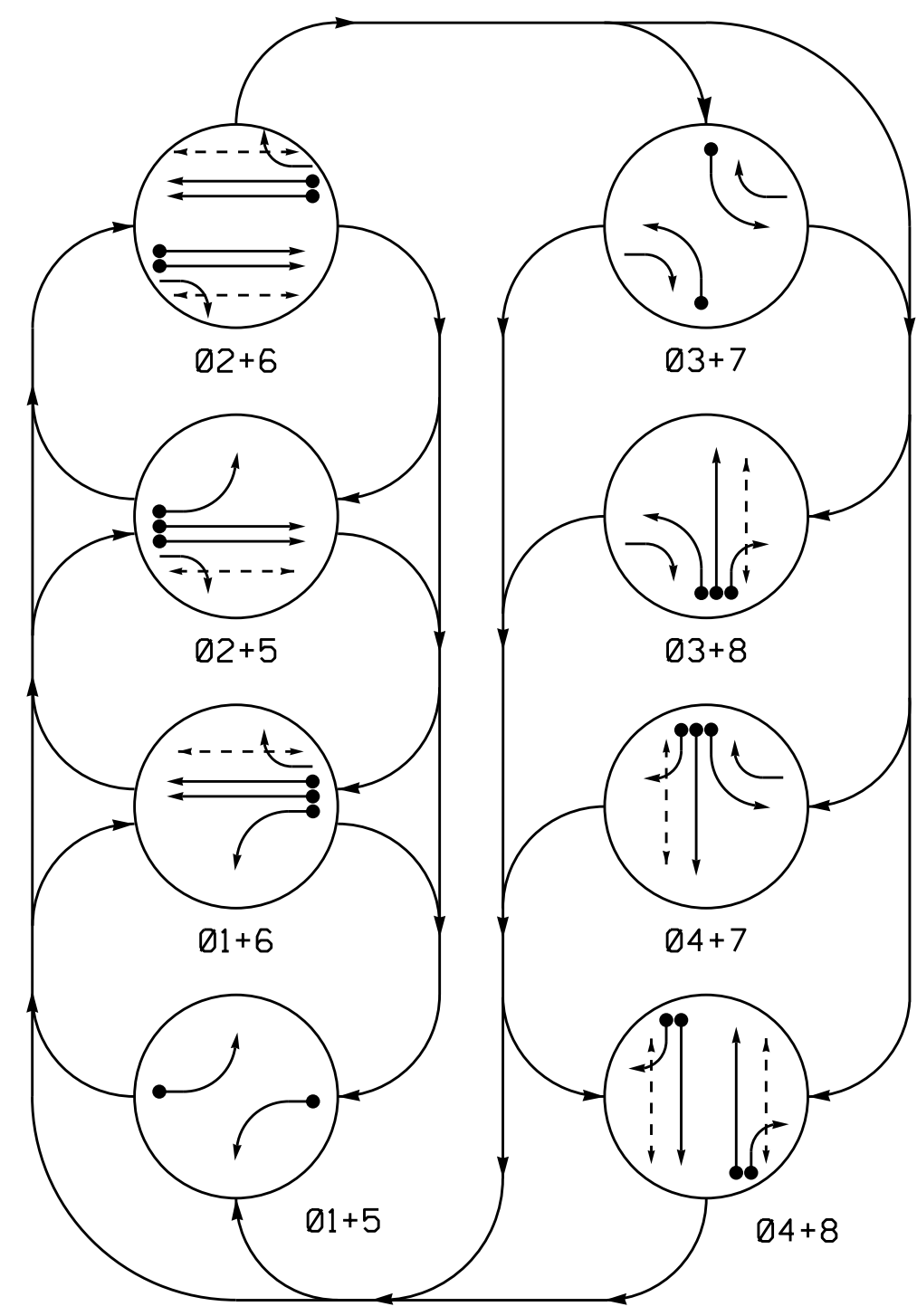


8 Phase Fully Actuated Fayetteville Signal System

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

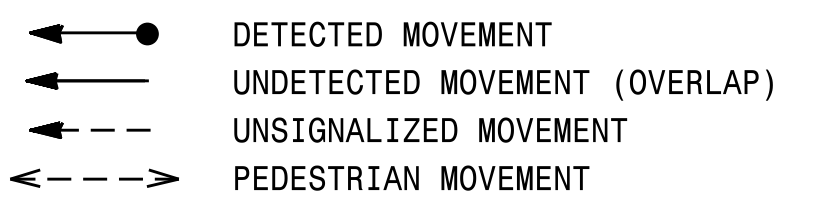
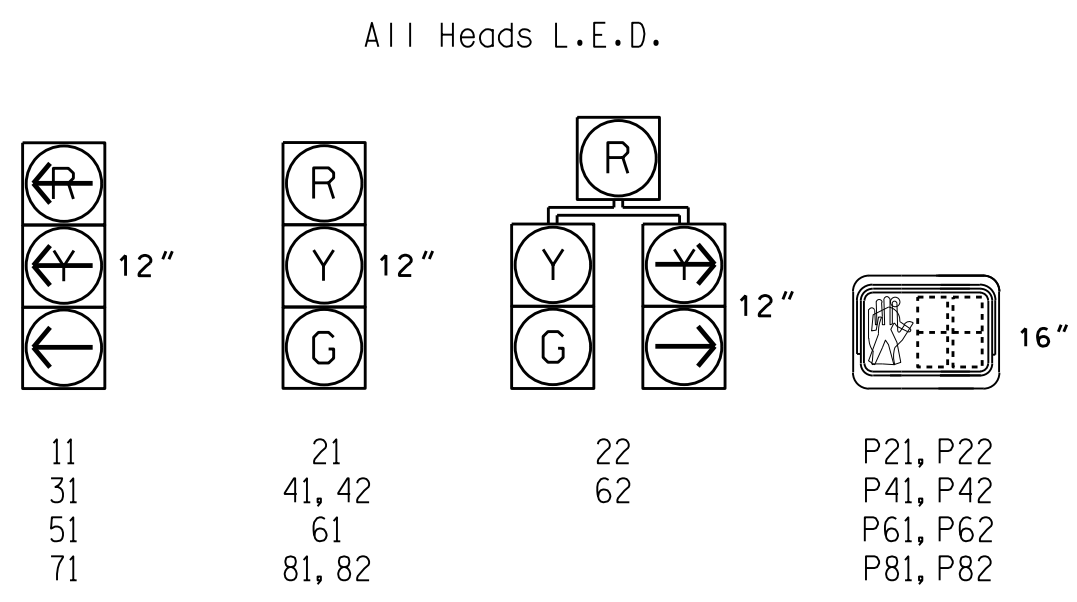


TABLE OF OPERATION

SIGNAL FACE	PHASE								F	L	T
	01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8			
11	←	←	←	←	←	←	←	←	←	←	←
21	R	R	G	G	R	R	R	R	Y		
22	R	R	G	G	R	R	R	R	Y		
31	←	←	←	←	←	←	←	←	←	←	←
41, 42	R	R	R	R	R	R	G	G	R		
51	←	←	←	←	←	←	←	←	←	←	←
61	R	G	R	G	R	R	R	R	Y		
62	R	G	R	G	R	R	R	R	Y		
71	←	←	←	←	←	←	←	←	←	←	←
81, 82	R	R	R	R	R	G	R	G	R		
P21, P22	DW	DW	W	W	DW	DW	DW	DRK			
P41, P42	DW	DW	DW	DW	DW	DW	W	DRK			
P61, P62	DW	W	DW	W	DW	DW	DW	DRK			
P81, P82	DW	DW	DW	DW	DW	W	DW	DRK			

SIGNAL FACE I.D.

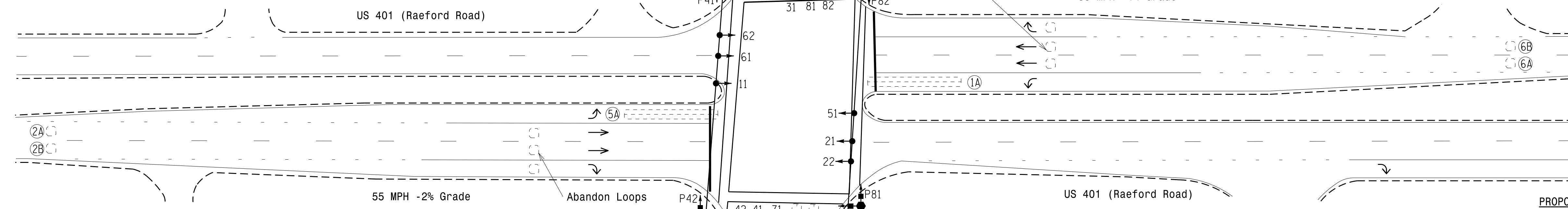


ASC/3 DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING						
					PHASE	CALLING	EXTEND TIME	DELAY TIME	TYPE	SYSTEM LOOP	
1A	6X60	+5	2-4-2	-	1	Yes	-	-	S	-	X
2A, 2B	6X6	420	5	-	2	Yes	-	-	N	-	X
3A	6X60	+5	2-4-2	-	3	Yes	-	3	S	-	X
4A	6X60	+5	2-4-2	-	4	Yes	-	-	S	-	X
4B	6X60	+5	2-4-2	-	4	Yes	-	15	S	-	X
5A	6X60	+5	2-4-2	-	5	Yes	-	-	S	-	X
6A, 6B	6X6	405	5	-	6	Yes	-	-	N	-	X
7A	6X60	+5	2-4-2	-	7	Yes	-	3	S	-	X
8A	6X60	+5	2-4-2	-	8	Yes	-	-	S	-	X
8B	6X60	+5	2-4-2	-	8	Yes	-	15	S	-	X

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- Phase 3 and/or phase 7 may be lagged.
- Set all detector units to presence mode.
- In the event of loop replacement, refer to the current ITS and Signals Design Manual and submit a Plan of Record to the Signal Design Section.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

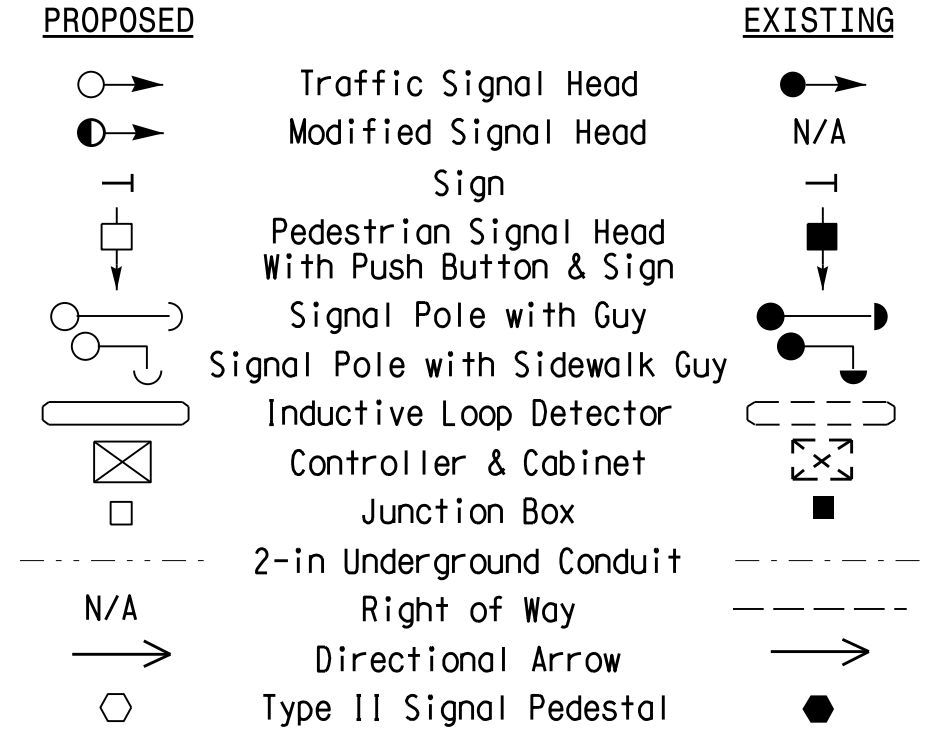


ASC/3 TIMING CHART

FEATURE	PHASE							
	1	2	3	4	5	6	7	8
Min Green *	7	14	7	7	7	14	7	7
Walk *	-	7	-	7	-	7	-	7
Ped Clear	-	21	-	36	-	18	-	31
Veh. Extension *	1.0	6.0	1.0	1.0	1.0	6.0	1.0	1.0
Max I *	20	90	25	35	20	90	25	35
Yellow	3.0	5.4	3.0	4.5	3.0	5.3	3.0	4.4
Red Clear	3.3	1.2	3.4	2.1	3.3	1.2	3.3	2.1
Red Revert	-	-	-	-	-	-	-	-
Actuations B4 Add *	-	0	-	-	-	0	-	-
Seconds / Actuation *	-	2.0	-	-	-	2.0	-	-
Max Initial *	-	46	-	-	-	44	-	-
Time Before Reduction *	-	15	-	-	-	15	-	-
Time To Reduce *	-	30	-	-	-	30	-	-
Minimum Gap	-	3.4	-	-	-	3.4	-	-
Locking Detector	-	X	-	-	-	X	-	-
Recall Position	-	VEH. RECALL	-	-	-	VEH. RECALL	-	-
Dual Entry	-	-	-	-	-	-	-	-
Simultaneous Gap	X	X	X	X	X	X	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.

LEGEND



Signal Upgrade

Prepared In the Offices of:

US 401 (Raeford Road) at SR 1105 (Graham Road) / SR 1409 (71st School Road) Fayetteville

Division 6 Cumberland County

PLAN DATE: January 2016 REVIEWED BY: PLA

PREPARED BY: Devin Smith REVIEWED BY: JPG

SCALE: 1" = 40'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER JASON P. GALLAGHER 029904

DocuSigned by: Jason P. Gallaghy 6/22/2016

SIG. INVENTORY NO. 06-0516

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