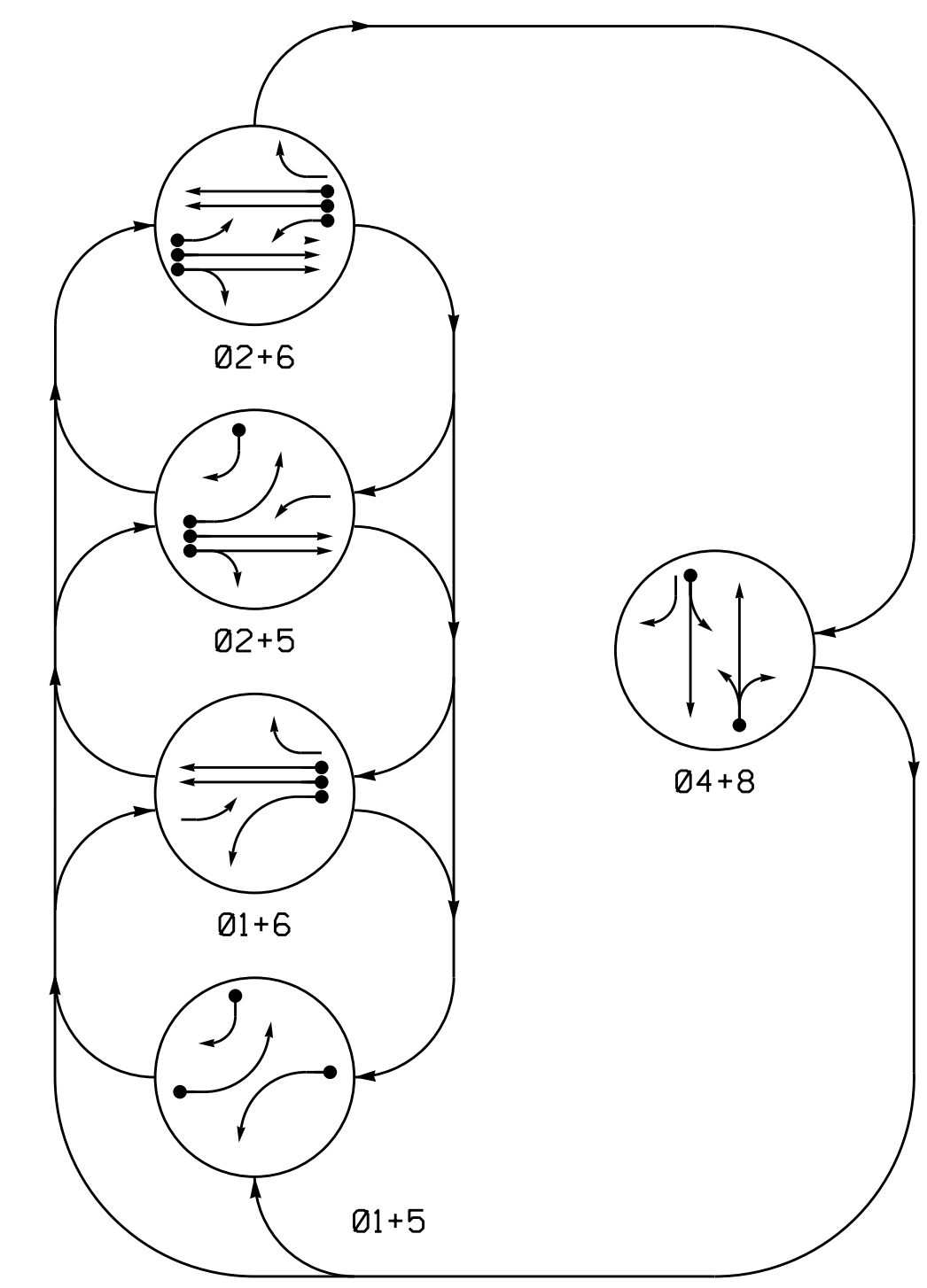


5 Phase Fully Actuated Fayetteville Signal System

PHASING DIAGRAM

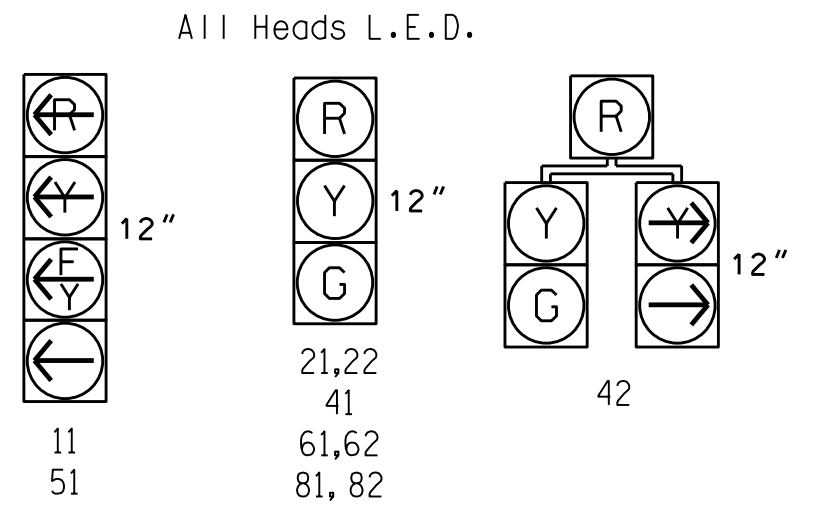


**PHASING DIAGRAM DETECTION LEGEND**  
 ● DETECTED MOVEMENT  
 ○ UNDETECTED MOVEMENT (OVERLAP)  
 - - - UNSIGNALIZED MOVEMENT  
 - - - PEDESTRIAN MOVEMENT

**TABLE OF OPERATION**

SIGNAL FACE	PHASE					
	01+5	01+6	02+5	02+6	04+8	FLSH
11	←	←	←	←	←	←
21,22	R	R	G	G	R	Y
41	R	R	R	R	G	R
42	R	R	R	R	G	R
51	←	←	←	←	←	←
61,62	R	G	R	G	R	Y
81, 82	R	R	R	R	G	R

**SIGNAL FACE I.D.**

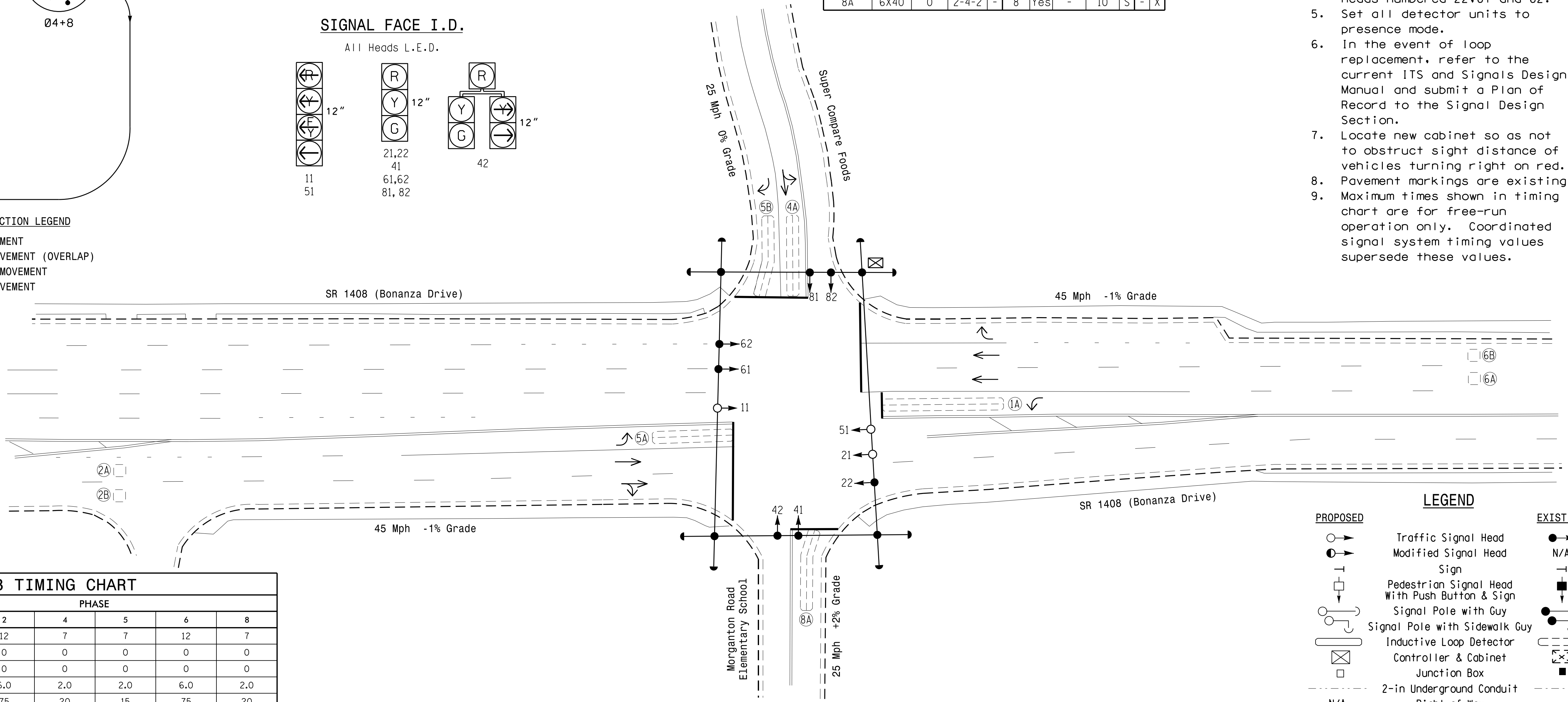


**ASC/3 DETECTOR INSTALLATION CHART**

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING						
					PHASE	CALLING	EXTEND TIME	DELAY TIME	TYPE	LOOP	NEW CARD
1A	6X60	0	2-4-2	-	1	Yes	-	15	S	-	X
2A	6X6	300	4	-	2	Yes	-	3	G	-	X
2B	6X6	300	4	-	2	Yes	-	-	N	-	X
4A	6X40	0	2-4-2	-	4	Yes	-	3	S	-	X
5A	6X40	0	2-4-2	-	5	Yes	-	15	S	-	X
5B	6X40	0	2-4-2	-	2	Yes	-	3	G	-	X
6A	6X6	300	4	-	6	Yes	-	-	N	-	X
6B	6X6	300	4	-	6	Yes	-	-	N	-	X
8A	6X40	0	2-4-2	-	8	Yes	-	10	S	-	X

**NOTES**

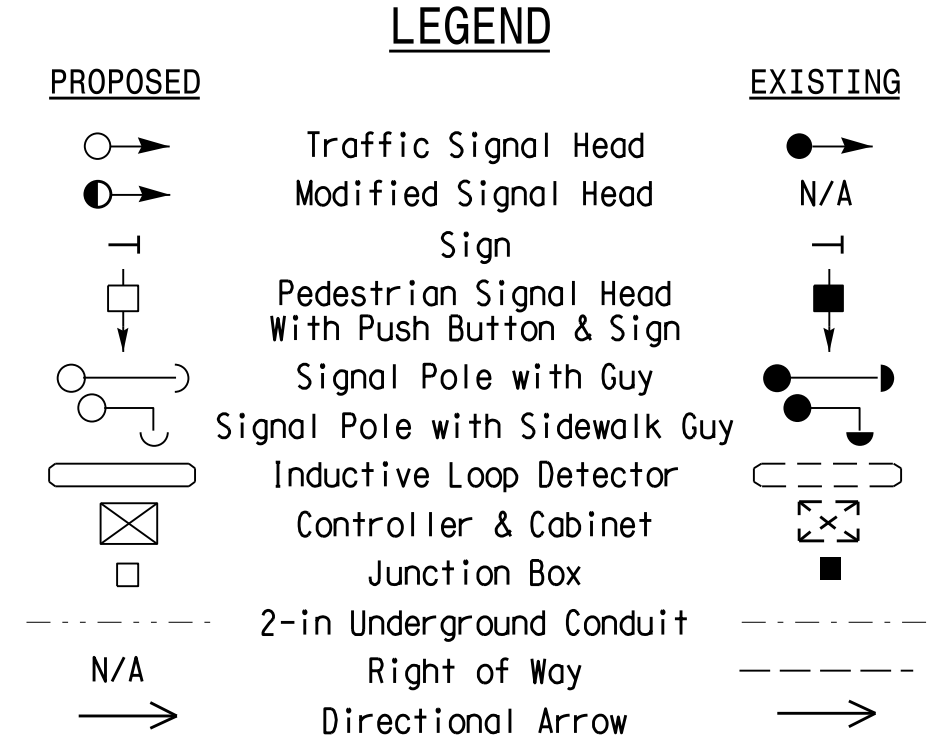
- Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- Reposition existing signal heads numbered 22,61 and 62.
- 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.
- 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	4	5	6	8	
Min Green *	7	12	7	7	12	7	
Walk *	0	0	0	0	0	0	
Ped Clear	0	0	0	0	0	0	
Veh. Extension *	1.0	6.0	2.0	2.0	6.0	2.0	
Max 1 *	15	75	20	15	75	20	
Yellow	3.0	4.6	3.2	3.0	4.6	3.2	
Red Clear	2.4	1.0	2.9	2.6	1.0	2.9	
Actuations B4 Add *	-	0	-	-	0	-	
Seconds / Actuation *	-	1.5	-	-	1.5	-	
Max Initial *	-	34	-	-	34	-	
Time Before Reduction *	-	15	-	-	15	-	
Time To Reduce *	-	30	-	-	30	-	
Minimum Gap	-	3.0	-	-	3.0	-	
Locking Detector	-	X	-	-	X	-	
Recall Position	-	VEH. RECALL	-	-	VEH. RECALL	-	
Dual Entry	-	-	X	-	-	X	
Simultaneous Gap	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.



Signal Upgrade

Prepared In the Offices of:  
 TRANSPORTATION MOBILITY AND SAFETY DIVISION  
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
 Signal Design Section  
 750 N. Greenfield Pkwy, Garner, NC 27529

SR 1408 (Bonanza Drive) at Super Compare Foods / Morganston Rd Elementary School  
 Division 6 Cumberland County Fayetteville  
 PLAN DATE: June 2016 REVIEWED BY: JPG  
 PREPARED BY: Jeff Spence REVIEWED BY:

SCALE: 1"=30'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL: JASON P. GALLAGHER, PROFESSIONAL ENGINEER, No. 029904, State of North Carolina

7/26/2016

SIG. INVENTORY NO. 06-1237

26-JUL-2016 09:10  
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 J. Spence