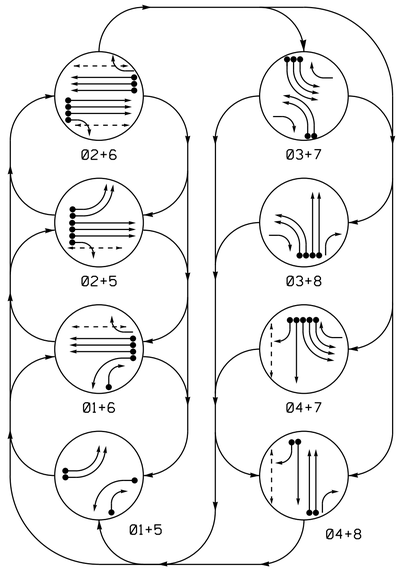
PROJECT REFERENCE NO.	SHEET NO.
U-5742	Sig.69.0

8 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	03+7	03+8	04+7	04+8	FLASH
11	←	←	R	R	R	R	R	R	R
21,22	R	R	G	G	R	R	R	R	Y
23	R	R	G	G	R/→	R/→	R	R	Y
31,32	R	R	R	R	←	←	R	R	R
41,42	R	R	R	R	R	R	G	G	R
51,52	←	R	←	R	R	R	R	R	R
61,62	R	G	R	G	R	R	R	R	Y
63	R	G	R	G	R/→	R	R/→	R	Y
71,72,73	R	R	R	R	←	R	←	R	R
81	R	R	R	R	R	G	R	G	R
82	R/→	R/→	R	R	R	G	R	G	R
P21,P22	DW	DW	W	W	DW	DW	DW	DW	DRK
P41,P42	DW	DW	DW	DW	DW	DW	W	W	DRK
P61,P62	DW	W	DW	W	DW	DW	DW	DW	DRK

SIGNAL FACE I.D.

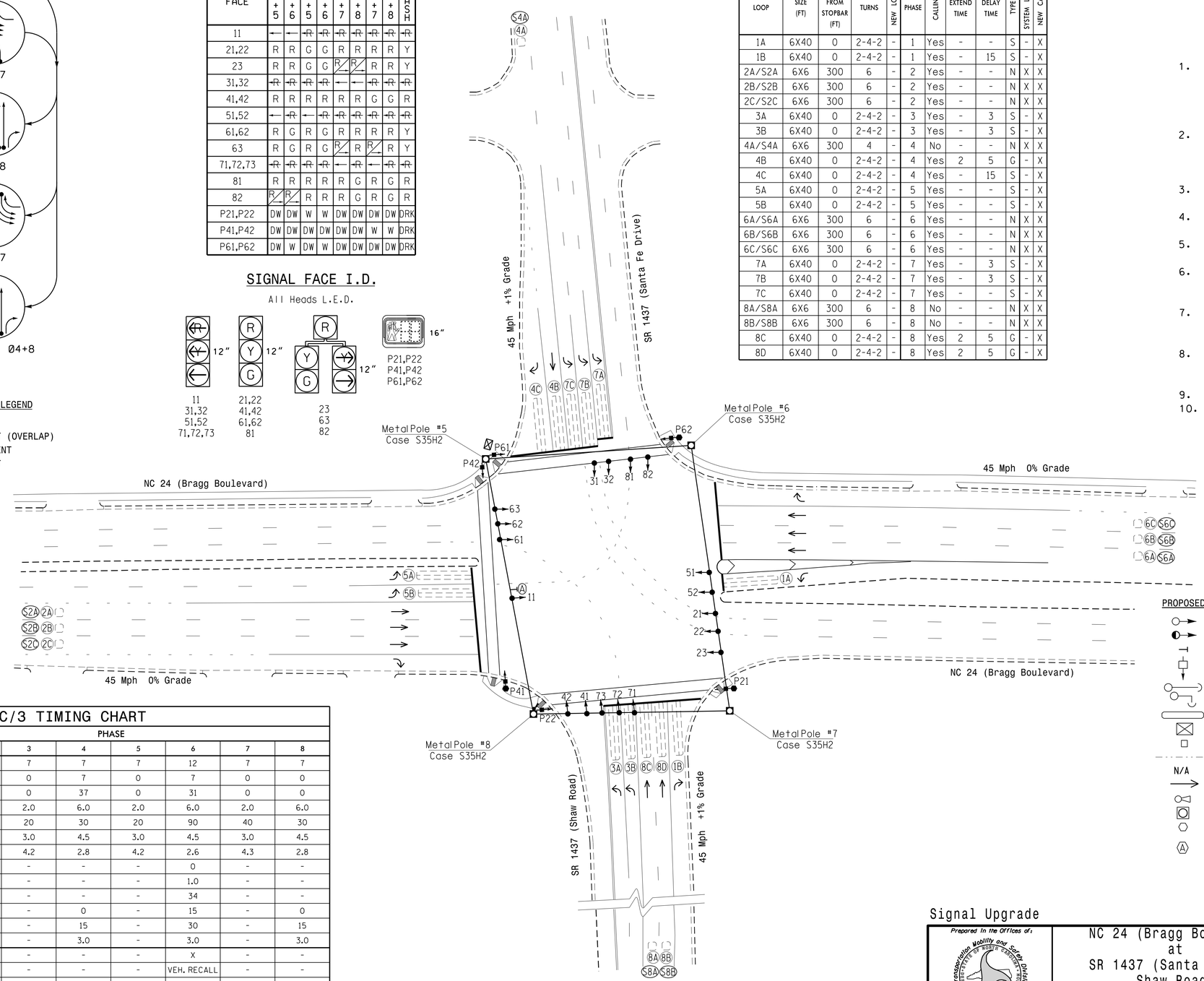
All Heads L.E.D.

ASC/3 DETECTOR INSTALLATION CHART

DETECTOR					PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTEND TIME	DELAY TIME	TYPE	SYSTEM LOOP	NEW CARD
1A	6X40	0	2-4-2	-	1	Yes	-	-	S	-	X
1B	6X40	0	2-4-2	-	1	Yes	-	15	S	-	X
2A/S2A	6X6	300	6	-	2	Yes	-	-	N	X	X
2B/S2B	6X6	300	6	-	2	Yes	-	-	N	X	X
2C/S2C	6X6	300	6	-	2	Yes	-	-	N	X	X
3A	6X40	0	2-4-2	-	3	Yes	-	3	S	-	X
3B	6X40	0	2-4-2	-	3	Yes	-	3	S	-	X
4A/S4A	6X6	300	4	-	4	No	-	-	N	X	X
4B	6X40	0	2-4-2	-	4	Yes	2	5	G	-	X
4C	6X40	0	2-4-2	-	4	Yes	-	15	S	-	X
5A	6X40	0	2-4-2	-	5	Yes	-	-	S	-	X
5B	6X40	0	2-4-2	-	5	Yes	-	-	S	-	X
6A/S6A	6X6	300	6	-	6	Yes	-	-	N	X	X
6B/S6B	6X6	300	6	-	6	Yes	-	-	N	X	X
6C/S6C	6X6	300	6	-	6	Yes	-	-	N	X	X
7A	6X40	0	2-4-2	-	7	Yes	-	3	S	-	X
7B	6X40	0	2-4-2	-	7	Yes	-	3	S	-	X
7C	6X40	0	2-4-2	-	7	Yes	-	-	S	-	X
8A/S8A	6X6	300	6	-	8	No	-	-	N	X	X
8B/S8B	6X6	300	6	-	8	No	-	-	N	X	X
8C	6X40	0	2-4-2	-	8	Yes	2	5	G	-	X
8D	6X40	0	2-4-2	-	8	Yes	2	5	G	-	X

NOTES

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



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	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
	CCTV Camera	
	Metal Strain Pole	
	Type II Signal Pedestal	
	"U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	

ASC/3 TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6	7	8
Min Green *	7	12	7	7	7	12	7	7
Walk *	0	7	0	7	0	7	0	0
Ped Clear	0	32	0	37	0	31	0	0
Veh. Extension *	2.0	6.0	2.0	6.0	2.0	6.0	2.0	6.0
Max 1 *	30	90	20	30	20	90	40	30
Yellow	3.0	4.5	3.0	4.5	3.0	4.5	3.0	4.5
Red Clear	3.6	2.6	4.2	2.8	4.2	2.6	4.3	2.8
Actuations B4 Add *	-	0	-	-	-	0	-	-
Seconds /Actuation *	-	1.0	-	-	-	1.0	-	-
Max Initial *	-	34	-	-	-	34	-	-
Time Before Reduction *	-	15	-	0	-	15	-	0
Time To Reduce *	-	30	-	15	-	30	-	15
Minimum Gap	-	3.0	-	3.0	-	3.0	-	3.0
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.

Signal Upgrade

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

NC 24 (Bragg Boulevard) at SR 1437 (Santa Fe Drive / Shaw Road)

Division 6 Cumberland County Fayetteville

PLAN DATE: November 2015	REVIEWED BY: JPG
PREPARED BY: Jeff Spence	REVIEWED BY:

SCALE 1"=40' (0 – 40)

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 029904 ENGINEER JASON P. GALLOWAY

DocuSigned by: Jason P. Galloway F700EA7048184D... 5/11/2016

SIG. INVENTORY NO. 06-0279

07-JUL-2016 09:00
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jgallaway