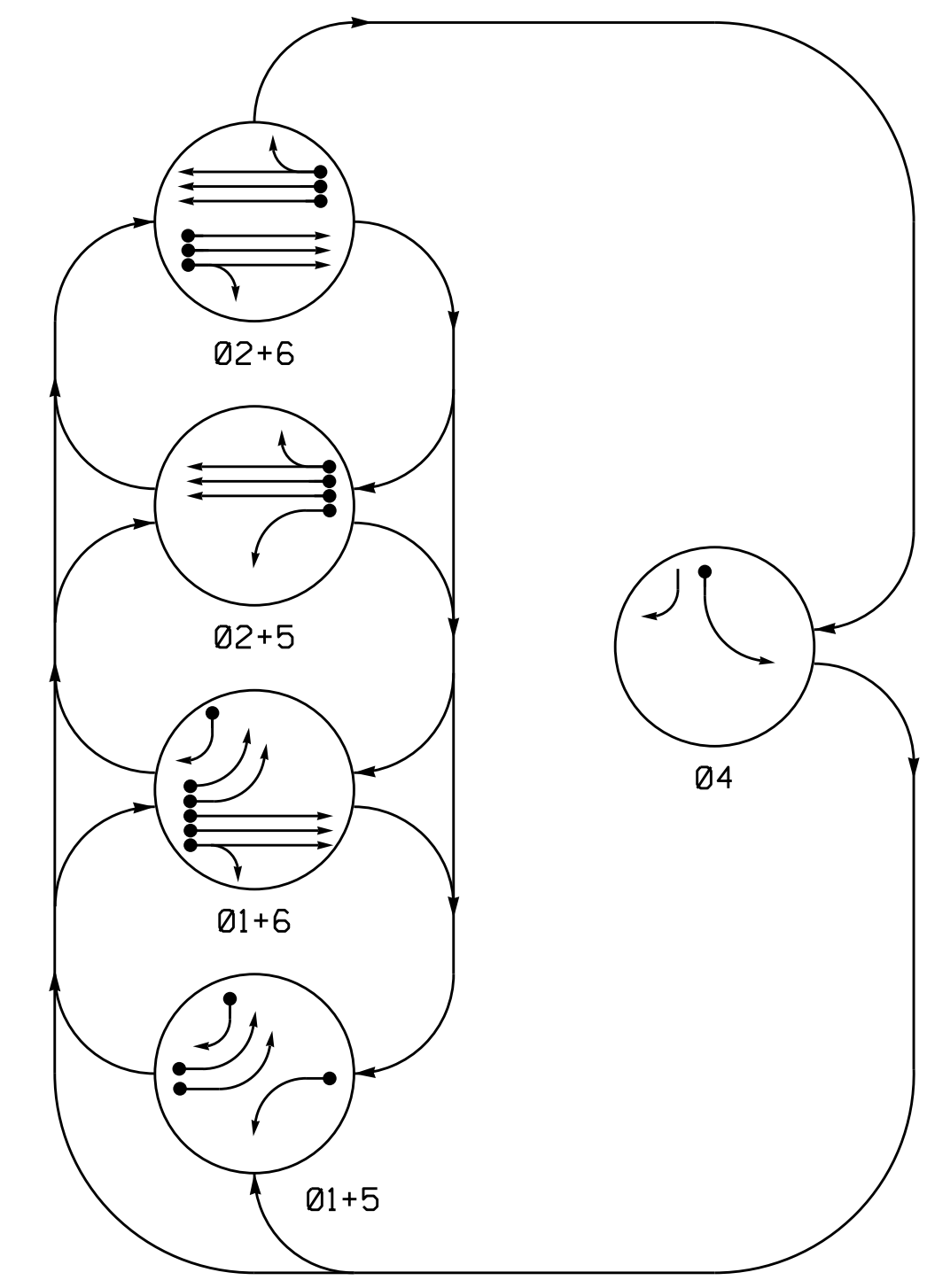


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

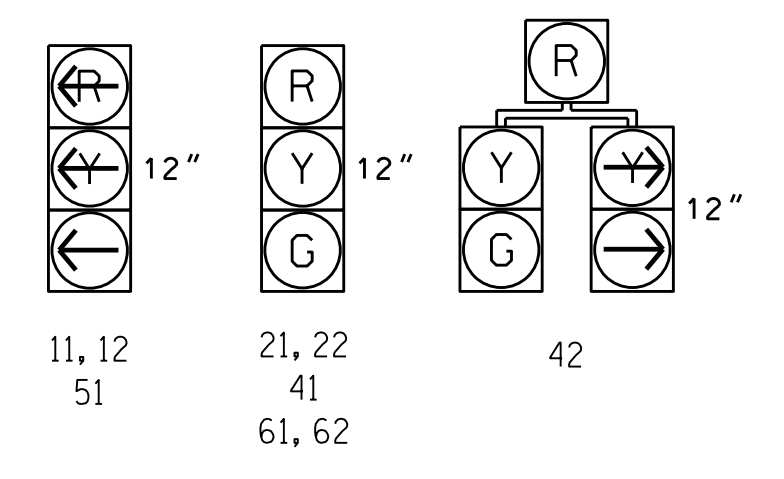
- ←●→ DETECTED MOVEMENT
- ←○→ UNDETECTED MOVEMENT (OVERLAP)
- ←- - -→ UNSIGNALIZED MOVEMENT
- ←- - - P (PEDESTRIAN) → PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE					
	Ø 1 + 5	Ø 1 + 6	Ø 2 + 5	Ø 2 + 6	Ø 4	F L S
11, 12	←	←	←	←	←	←
21, 22	R	R	G	G	R	Y
41	R	R	R	R	G	R
42	R	R	R	R	G	R
51	←	R	←	←	←	←
61, 62	R	G	R	G	R	Y

SIGNAL FACE I.D.

All Heads L.E.D.



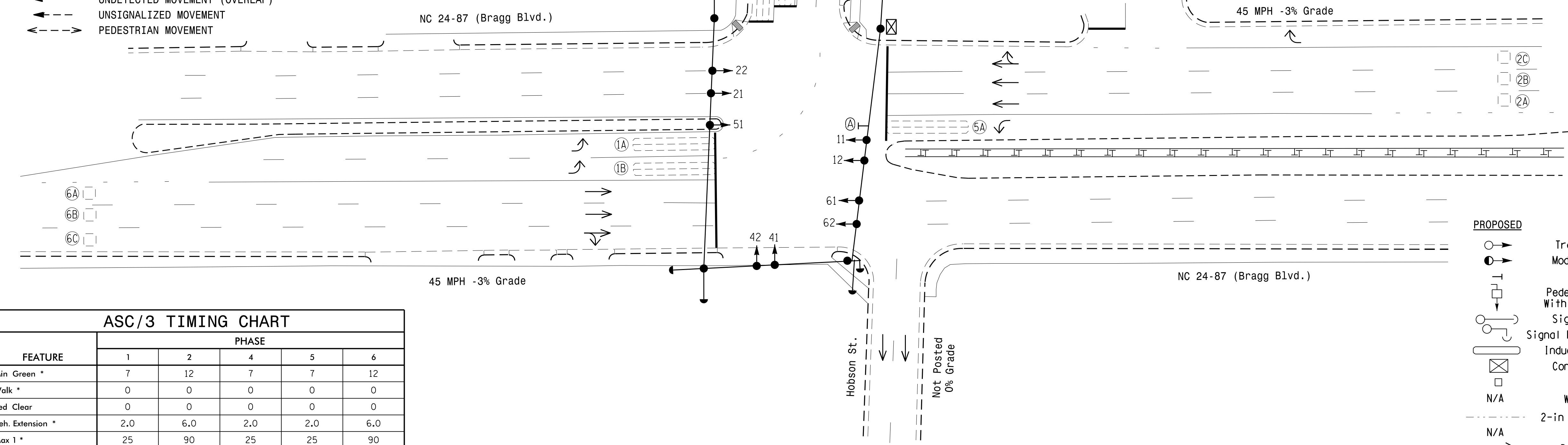
ASC/3 DETECTOR INSTALLATION CHART

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

5 Phase Fully Actuated Fayetteville Signal System

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.
- 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.
- 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	
Min Green *	7	12	7	7	12	
Walk *	0	0	0	0	0	
Ped Clear	0	0	0	0	0	
Veh. Extension *	2.0	6.0	2.0	2.0	6.0	
Max I *	25	90	25	25	90	
Yellow	3.0	4.8	3.0	3.0	4.8	
Red Clear	2.9	1.3	3.3	2.9	1.3	
Actuations B4 Add *	-	0	-	-	0	
Seconds / Actuation *	-	1.0	-	-	1.0	
Max Initial *	-	34	-	-	34	
Time Before Reduction *	-	15	-	-	15	
Time To Reduce *	-	45	-	-	45	
Minimum Gap	-	3.0	-	-	3.0	
Locking Detector	-	X	-	-	X	
Recall Position	-	VEH. RECALL	-	-	VEH. RECALL	
Dual Entry	-	-	-	-	-	
Simultaneous Gap	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

PROPOSED	EXISTING
○ → Traffic Signal Head	● → Traffic Signal Head
○ → Modified Signal Head	N/A
○ → Sign	N/A
○ → Pedestrian Signal Head	○ → Pedestrian Signal Head
○ → With Push Button & Sign	○ → With Push Button & Sign
○ → Signal Pole with Guy	○ → Signal Pole with Guy
○ → Signal Pole with Sidewalk Guy	○ → Signal Pole with Sidewalk Guy
⊗ → Inductive Loop Detector	⊗ → Inductive Loop Detector
⊠ → Controller & Cabinet	⊠ → Controller & Cabinet
□ → Junction Box	□ → Junction Box
N/A	○ → Wheel Chair Ramp
- - -	- - - 2-in Underground Conduit
N/A	- - - Right of Way
→	→ Directional Arrow
N/A	- - - Guardrail
⊙	⊙ "U-TURN YIELD TO RIGHT TURN" Sign (R10-16)

Signal Upgrade

Prepared in the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

NC 24-87 (Bragg Boulevard) at Elm Street

Division 6 Cumberland County Fayetteville

PLAN DATE: September 2015 REVIEWED BY: JPG

PREPARED BY: Jeff Spence REVIEWED BY:

REVISIONS: INIT. DATE

SCALE: 1" = 30'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL: JASON P. GALLOWAY, PROFESSIONAL ENGINEER, No. 029904, DATE 3/14/2016

SIG. INVENTORY NO. 06-0032

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