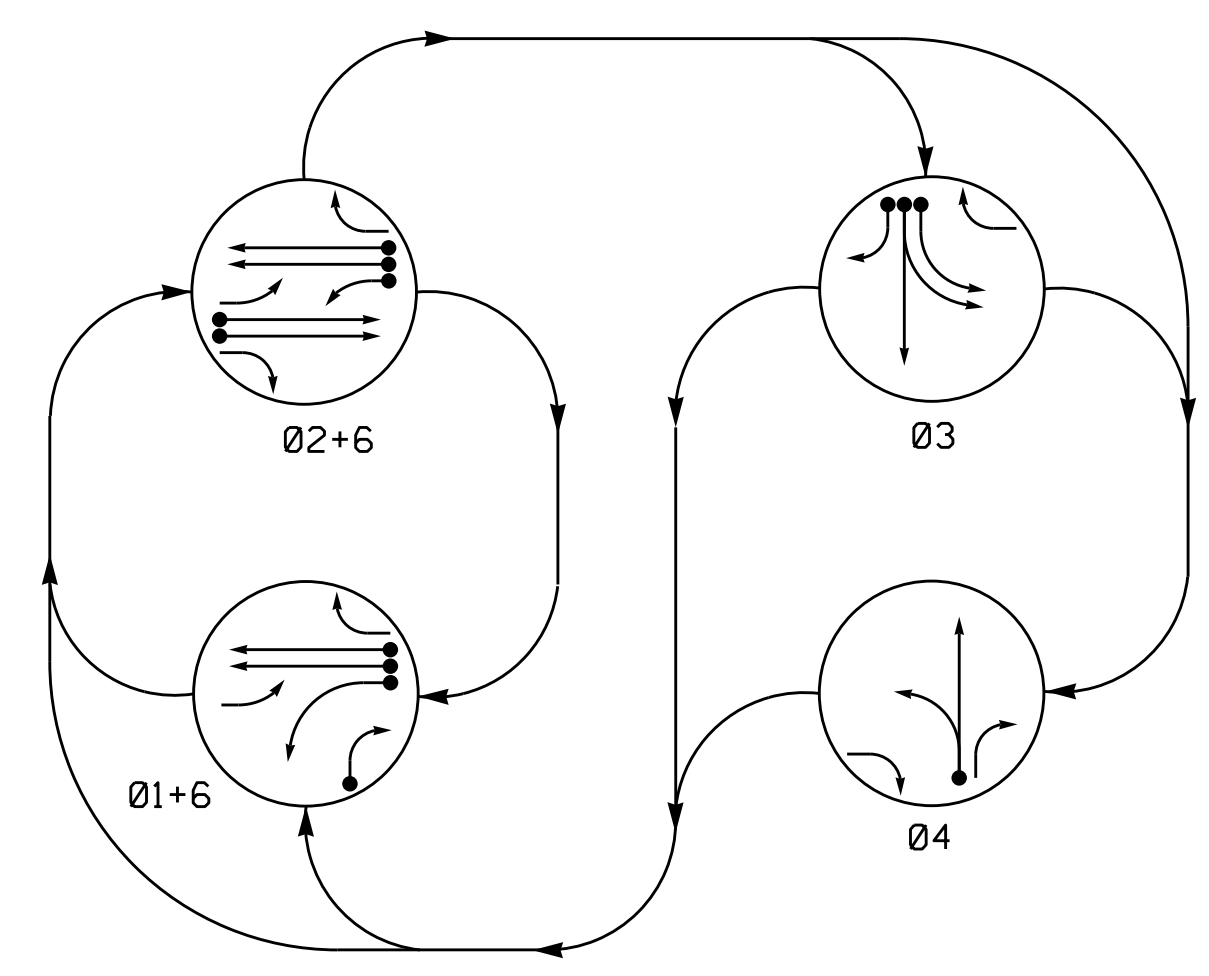


4 Phase Fully Actuated Fayetteville Signal System

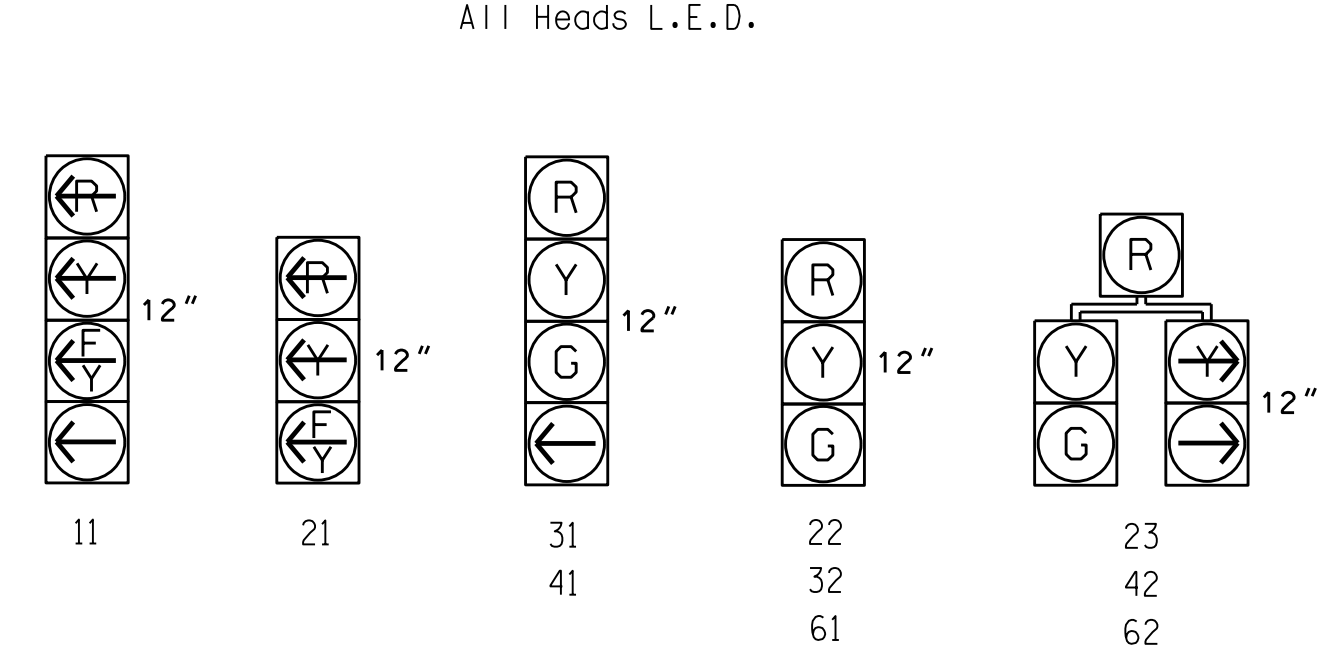
PHASING DIAGRAM



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

SIGNAL FACE	PHASE				
	01+6	02+6	03	04	U-TURN
11	←	←	←	←	←
21	←	←	←	←	←
22	R	G	R	R	Y
23	R	G	R	R	Y
31	R	R	G	R	R
32	R	R	G	R	R
41	R	R	R	G	R
42	R	R	R	G	R
61	G	G	R	R	Y
62	G	G	R	R	Y

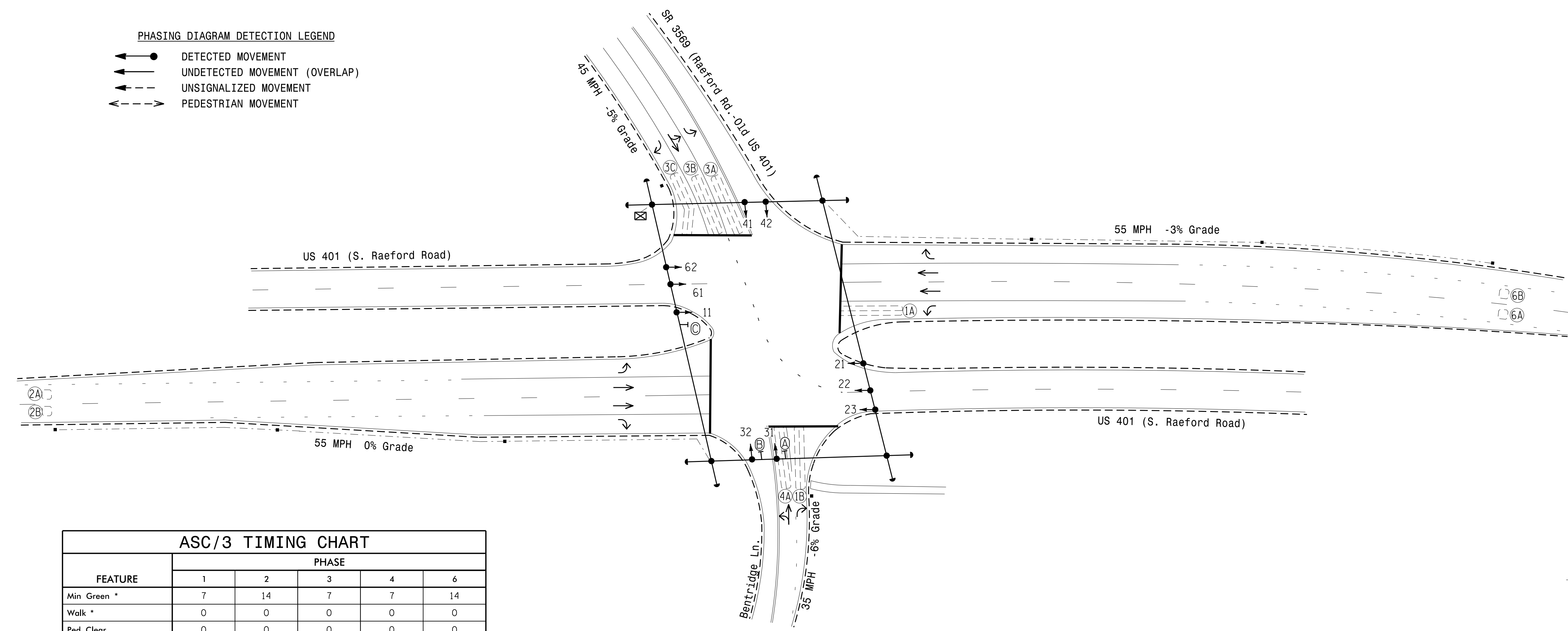
SIGNAL FACE I.D.



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	-	15	S	- Y
1B	6X40	0	2-4-2	-	6	Yes	-	3	G	- Y
2A	6X6	420	5	-	2	Yes	-	-	N	- Y
2B	6X6	420	5	-	2	Yes	-	-	N	- Y
3A	6X40	0	2-4-2	-	3	Yes	-	3	S	- Y
3B	6X40	0	2-4-2	-	3	Yes	-	-	S	- Y
3C	6X40	0	2-4-2	-	3	Yes	-	15	S	- Y
4A	6X40	0	2-4-2	-	4	Yes	-	3	S	- Y
6A	6X6	420	6	-	6	Yes	-	-	N	- Y
6B	6X6	420	6	-	6	Yes	-	-	N	- Y

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 may be lagged.
- The order of phase 3 and phase 4 may be reversed.
- Set all detector units to presence mode.
- 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.



FEATURE	PHASE				
	1	2	3	4	6
Min Green *	7	14	7	7	14
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 *	15	90	35	35	90
Yellow	3.0	5.5	5.0	4.3	5.5
Red Clear	3.2	1.2	1.9	2.2	1.2
Actuations B4 Add *	-	0	-	-	0
Seconds /Actuation *	-	1.5	-	-	1.5
Max Initial *	-	46	-	-	46
Time Before Reduction *	-	15	-	-	15
Time To Reduce *	-	45	-	-	45
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

\* 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.

PROPOSED	EXISTING
○ → Traffic Signal Head	● → N/A
○ → Modified Signal Head	○ → N/A
⊥ Sign	⊥ Sign
⊥ 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
⊥ 2-in Underground Conduit	⊥ 2-in Underground Conduit
N/A Right of Way	N/A Right of Way
→ Directional Arrow	→ Directional Arrow
(A) Left Arrow "ONLY" Sign (R3-5L)	(A) Left Arrow "ONLY" Sign (R3-5L)
(B) Combined Through and Left Arrow Sign (R3-6L)	(B) Combined Through and Left Arrow Sign (R3-6L)
(C) "U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	(C) "U-TURN YIELD TO RIGHT TURN" Sign (R10-16)

Signal Upgrade

Prepared In the Offices of:  
 Transportation Mobility and Safety Solutions  
 ENGINEERS OF NORTH CAROLINA  
 Signal Design Section  
 750 N. Greenfield Pkwy, Garner, NC 27529

US 401 (South Raeford Road) at SR 3569 (Raeford Rd.-Old US 401) / Bentrige Ln.  
 Division 6 Cumberland County Fayetteville  
 PLAN DATE: January 2016 REVIEWED BY: JPG  
 PREPARED BY: KGP, Jr. REVIEWED BY:

REVISIONS: \_\_\_\_\_ INIT. DATE

SCALE: 0 40  
 1" = 40'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER PAMELA L. ALEXANDER 023489  
 4/15/2016  
 SIG. INVENTORY NO. 06-0845

14-APR-2016 09:05  
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 kgpae@tms