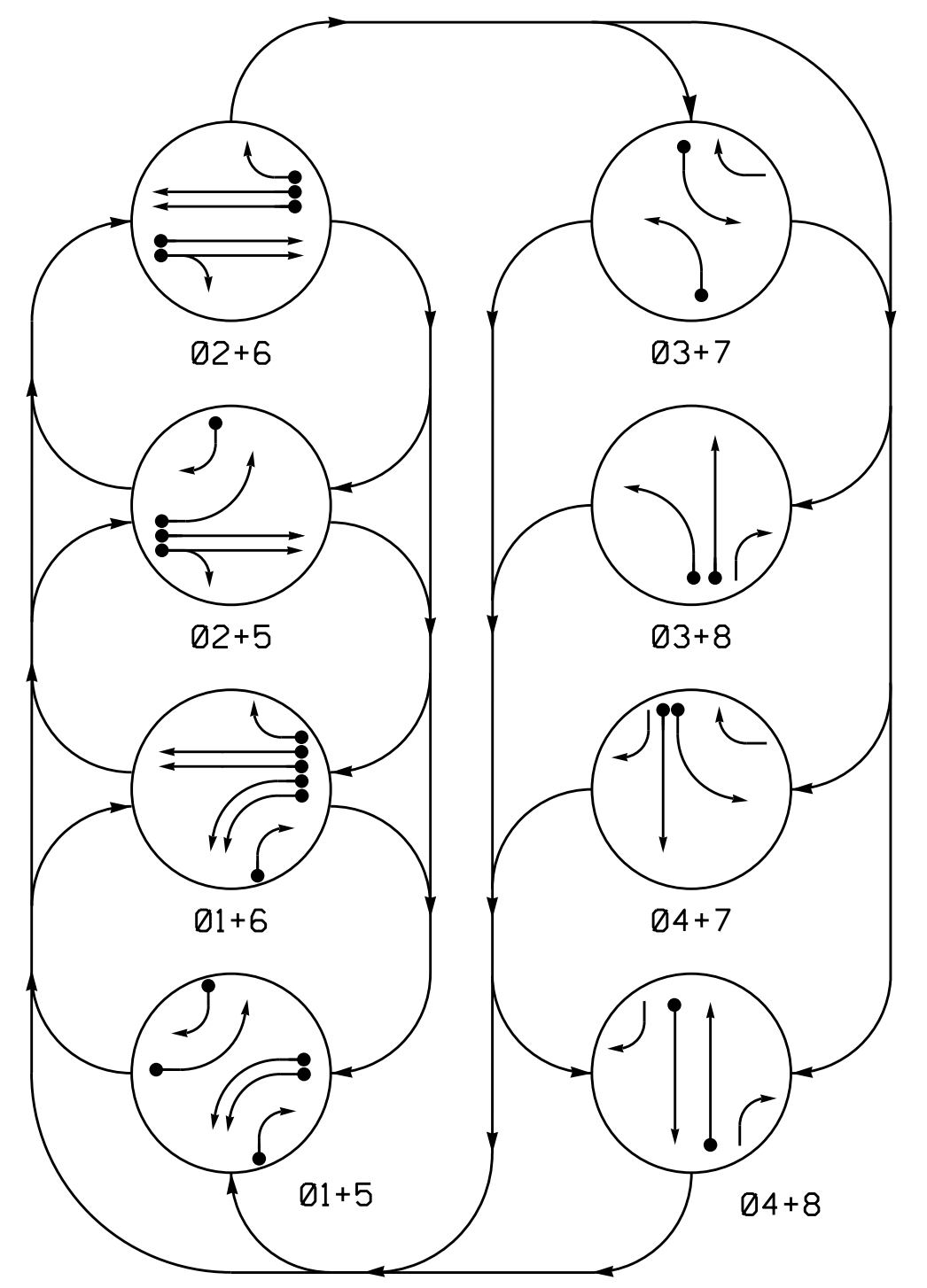


**PHASING DIAGRAM**



**PHASING DIAGRAM DETECTION LEGEND**

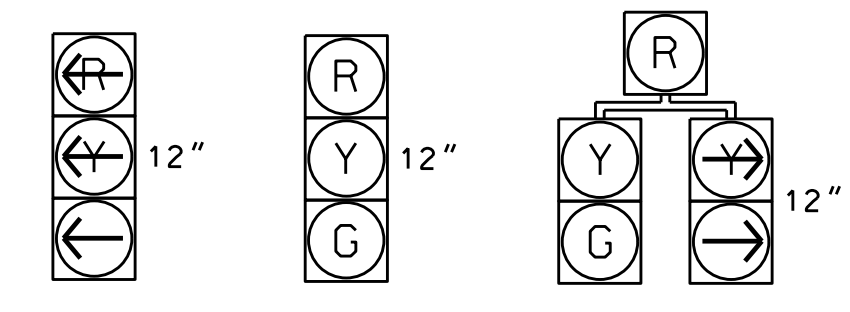
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

**TABLE OF OPERATION**

SIGNAL FACE	PHASE							
	01+5	02+5	03+8	04+7	01+6	02+6	03+7	04+8
11,12	---	---	---	---	---	---	---	---
21,22	R	R	G	G	R	R	R	Y
31	---	---	---	---	---	---	---	---
41	R	R	R	R	R	R	G	G
42	R	R	R	R	R	R	G	G
51	---	---	---	---	---	---	---	---
61	R	G	R	G	R	R	R	Y
62	R	G	R	G	R	R	R	Y
71	---	---	---	---	---	---	---	---
81	R	R	R	R	R	G	R	G
82	R	R	R	R	R	G	R	G

**SIGNAL FACE I.D.**

All Heads L.E.D.



11, 12	21, 22	42
31	41	62
51	61	82
71	81	

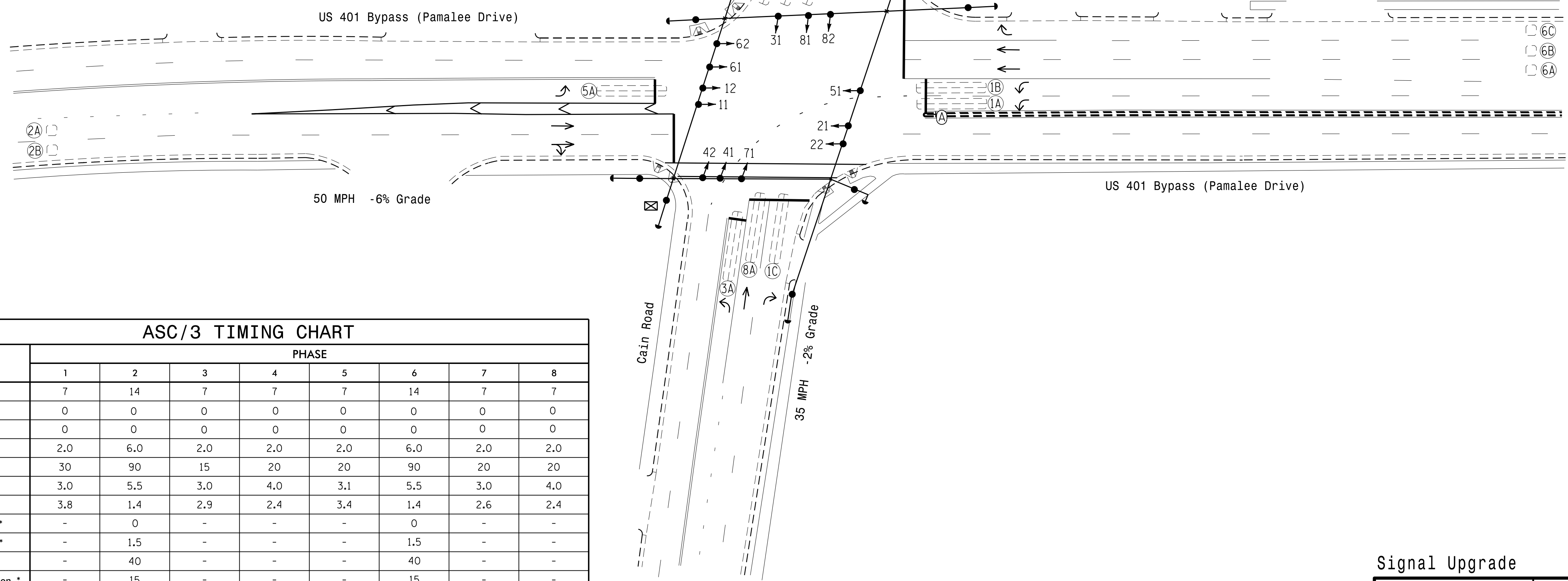
**ASC/3 DETECTOR INSTALLATION CHART**

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING						
					PHASE	CALLING	EXTEND TIME	DELAY TIME	TYPE	SYSTEM LOOP	
1A,1B	6X40	+5	2-4-2	-	1	Yes	-	-	S	-	X
1C	6X40	+5	2-4-2	-	1	Yes	-	15	S	-	X
2A	6X6	355	5	-	2	Yes	-	-	N	-	X
2B	6X6	355	5	-	2	Yes	-	-	N	-	X
3A	6X40	+5	2-4-2	-	3	Yes	-	3	S	-	X
4A	6X40	+5	2-4-2	-	4	Yes	-	-	S	-	X
5A	6X40	+5	2-4-2	-	5	Yes	-	3	S	-	X
5B	6X40	+5	2-4-2	-	5	Yes	-	15	S	-	X
6A	6X6	355	5	-	6	Yes	-	-	N	-	X
6B	6X6	355	5	-	6	Yes	-	-	N	-	X
6C	6X6	355	5	-	6	Yes	-	-	N	-	X
7A	6X40	+5	2-4-2	-	7	Yes	-	3	S	-	X
8A	6X40	+5	2-4-2	-	8	Yes	-	-	S	-	X

**8 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.
- Phase 3 and/or phase 7 may be lagged.
- 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.



**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 *	0	0	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0	0	0
Veh. Extension *	2.0	6.0	2.0	2.0	2.0	6.0	2.0	2.0
Max 1 *	30	90	15	20	20	90	20	20
Yellow	3.0	5.5	3.0	4.0	3.1	5.5	3.0	4.0
Red Clear	3.8	1.4	2.9	2.4	3.4	1.4	2.6	2.4
Actuations B4 Add *	-	0	-	-	-	0	-	-
Seconds / Actuation *	-	1.5	-	-	-	1.5	-	-
Max Initial *	-	40	-	-	-	40	-	-
Time Before Reduction *	-	15	-	-	-	15	-	-
Time To Reduce *	-	15	-	-	-	15	-	-
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	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**

- |  |                 |
|--|-----------------|
| <b>PROPOSED</b>                                  | <b>EXISTING</b> |
| ○ Traffic Signal Head                            | ● N/A           |
| ● Modified Signal Head                           | ○ N/A           |
| □ Sign   | □ N/A           |
| □ Pedestrian Signal Head With Push Button & Sign | □ N/A           |
| □ Signal Pole with Guy                           | □ N/A           |
| □ Signal Pole with Sidewalk Guy                  | □ N/A           |
| □ Inductive Loop Detector                        | □ N/A           |
| □ Controller & Cabinet                           | □ N/A           |
| □ Junction Box                                   | □ N/A           |
| □ 2-in Underground Conduit                       | □ N/A           |
| --- Right of Way                                 | --- N/A         |
| → Directional Arrow                              | → N/A           |
| --- Wheel Chair Ramp                             | --- N/A         |
| ⊙ No U-Turn Sign (R3-4)                          | ⊙ N/A           |

**Signal Upgrade**

Prepared In the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

**US 401 Bypass (Pamalee Drive) at Cain Road / Helen Street**

Division 6 Cumberland County Fayetteville

PLAN DATE: November 2015 REVIEWED BY: JPG

PREPARED BY: EM Minshew REVIEWED BY:

SEAL

DocuSigned by:  
Jason P. Gallaway  
4/19/2016

SIG. INVENTORY NO. 06-0084

SCALE 0 40  
1"=40'

10-000-2015-16-01  
 S:\MT\SAS\15\S\S\Signal\Sig\Design\_Section\Eastern\_Region\01\U-5742\_Fayetteville\ASC3\06-0084\060084\_s1a.dsn\_2015mtds.dgn  
 emminshew