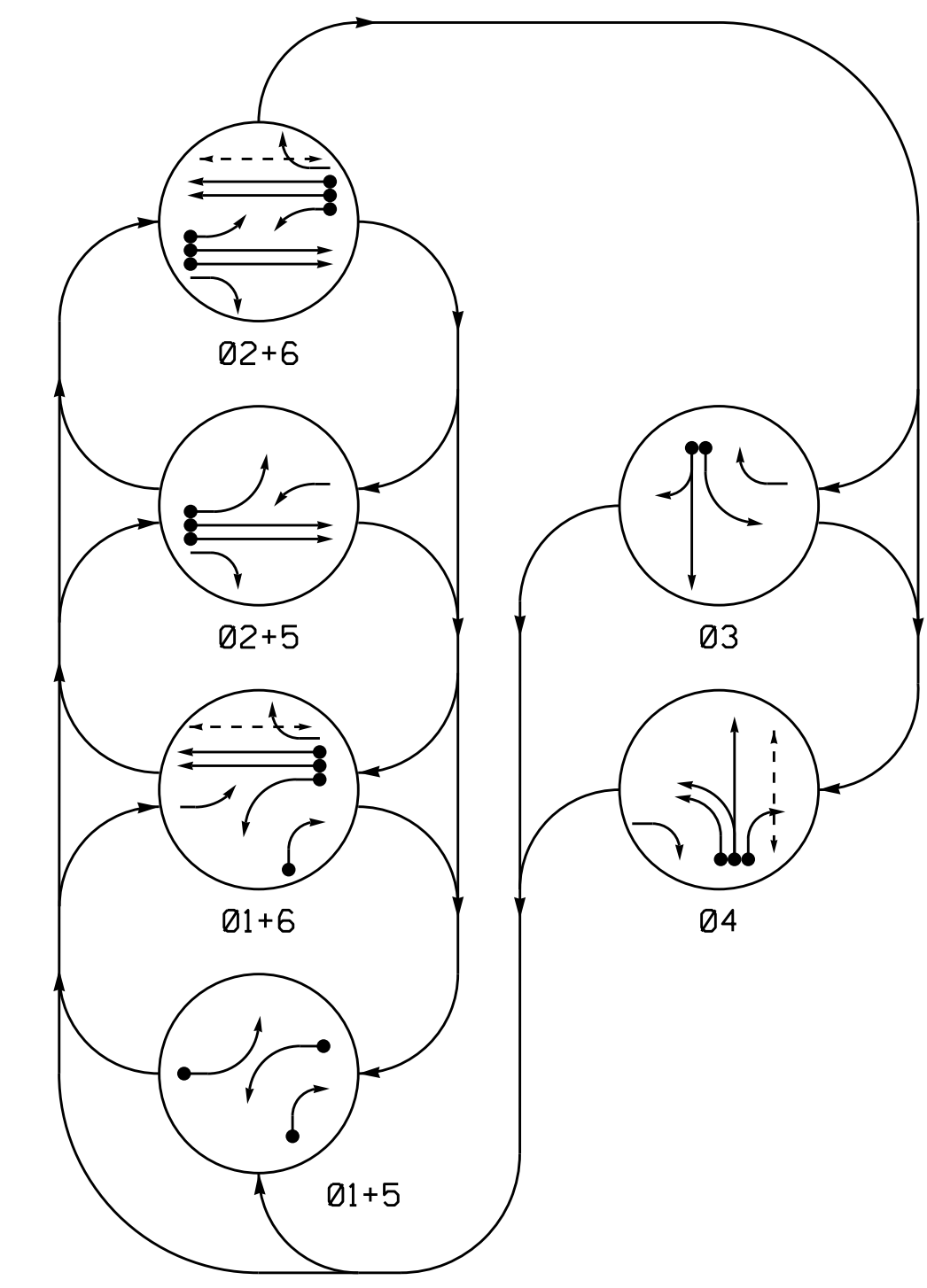


6 Phase Fully Actuated Fayetteville Signal System

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.
- The order of phase 3 and phase 4 may be reversed.
- 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.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

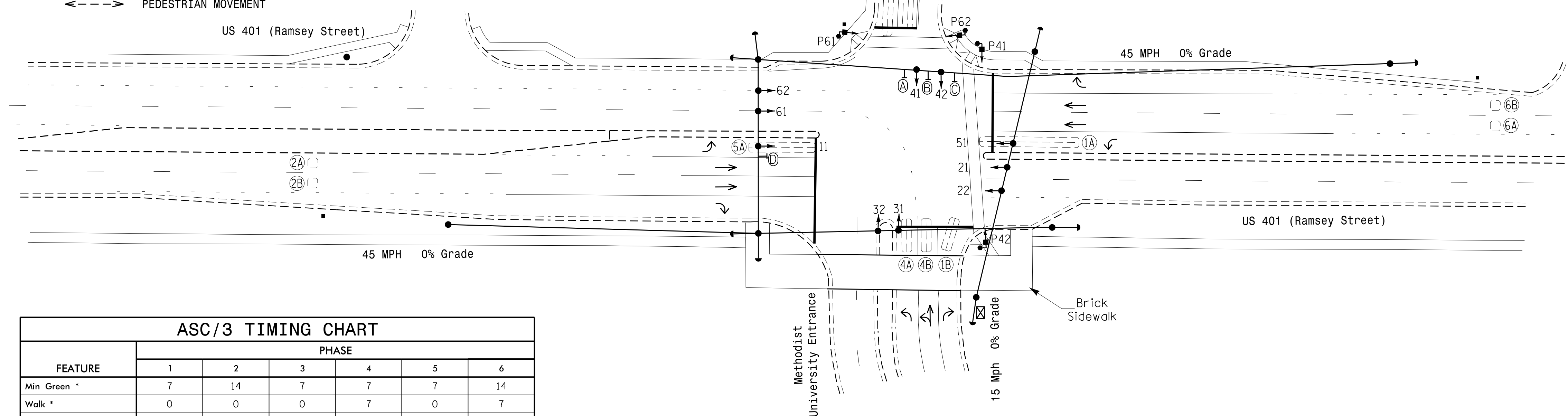
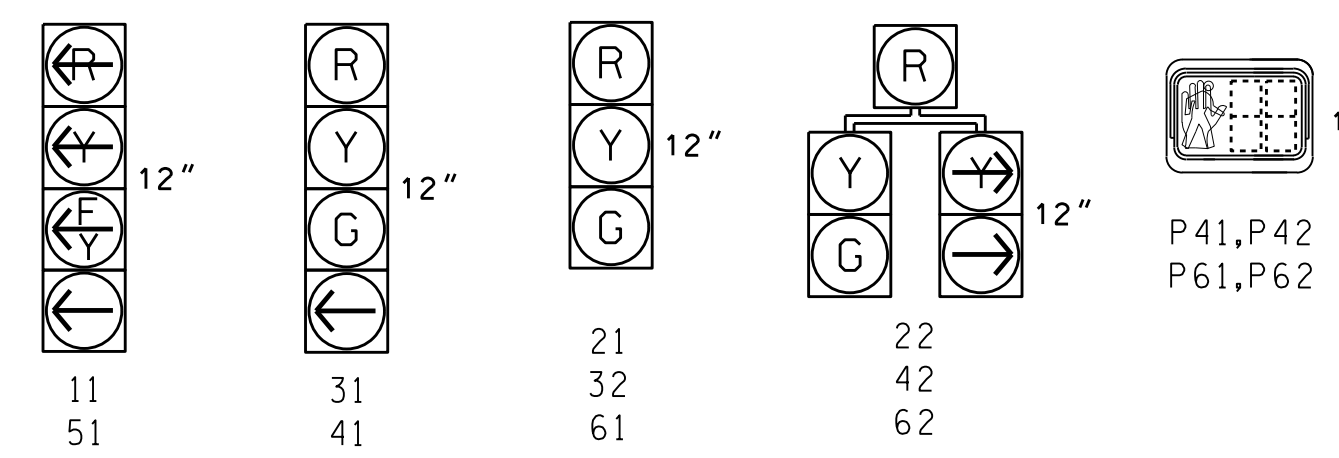
SIGNAL FACE	PHASE					
	01+5	02+5	03	04	05	06
11	Y	Y	R	R	Y	Y
21	R	R	G	G	R	Y
22	R	R	G	G	R	Y
31	R	R	R	R	G	R
32	R	R	R	R	G	R
41	R	R	R	R	G	R
42	R	R	R	R	G	R
51	Y	Y	R	R	Y	Y
61	R	G	R	G	R	Y
62	R	G	R	G	R	Y
P41,P42	DW	DW	DW	DW	W	DRK
P61,P62	DW	W	W	DW	DW	DRK

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	6X60	+5	2-4-2	-	1	Yes	-	15	S	-	X
1B	6X20	+5	2-4-2	-	1	Yes	-	15	S	-	X
2A	6X6	300	5	-	2	Yes	-	-	N	-	X
2B	6X6	300	5	-	2	Yes	-	-	N	-	X
3A	6X40	0	2-4-2	-	3	Yes	-	-	S	-	X
3B	6X40	+5	2-4-2	-	3	Yes	-	10	S	-	X
4A	6X20	+5	2-4-2	-	4	Yes	-	-	S	-	X
4B	6X20	+5	2-4-2	-	4	Yes	-	-	S	-	X
5A	6X40	0	2-4-2	-	5	Yes	-	15	S	-	X
5B	6X40	0	2-4-2	-	5	Yes	-	3	G	-	X
6A	6X6	300	5	-	6	Yes	-	-	N	-	X
6B	6X6	300	5	-	6	Yes	-	-	N	-	X

SIGNAL FACE I.D.

All Heads L.E.D.



ASC/3 TIMING CHART

FEATURE	PHASE					
	1	2	3	4	5	6
Min Green *	7	14	7	7	7	14
Walk *	0	0	0	7	0	7
Ped Clear	0	0	0	27	0	11
Veh. Extension *	1.0	6.0	2.0	2.0	2.0	6.0
Max I *	15	120	20	20	15	120
Yellow	3.0	4.5	3.2	3.0	3.0	4.5
Red Clear	3.1	1.6	3.2	3.4	3.1	1.6
Actuations B4 Add *	-	0	-	-	-	0
Seconds /Actuation *	-	1.5	-	-	-	1.5
Max Initial *	-	34	-	-	-	34
Time Before Reduction *	-	20	-	-	-	20
Time To Reduce *	-	40	-	-	-	40
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

\* 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 Traffic Signal Head                          |  | Existing Traffic Signal Head                          |
|  | Proposed Modified Signal Head                         |  | Existing Modified Signal Head                         |
|  | Proposed Pedestrian Signal Head                       |  | Existing Pedestrian Signal Head                       |
|  | Proposed Signal Pole with Guy                         |  | Existing Signal Pole with Guy                         |
|  | Proposed Inductive Loop Detector                      |  | Existing Inductive Loop Detector                      |
|  | Proposed Controller & Cabinet                         |  | Existing Controller & Cabinet                         |
|  | Proposed Junction Box                                 |  | Existing Junction Box                                 |
|  | Proposed 2-in Underground Conduit                     |  | Existing 2-in Underground Conduit                     |
|  | Proposed Right of Way                                 |  | Existing Right of Way                                 |
|  | Proposed Directional Arrow                            |  | Existing Directional Arrow                            |
|  | Proposed Type II Signal Pedestal                      |  | Existing Type II Signal Pedestal                      |
|  | Proposed Left Arrow "ONLY" Sign (R3-5L)               |  | Existing Left Arrow "ONLY" Sign (R3-5L)               |
|  | Proposed Combined Through and Left Arrow Sign (R3-6L) |  | Existing Combined Through and Left Arrow Sign (R3-6L) |
|  | Proposed Right Arrow "ONLY" Sign (R3-5R)              |  | Existing Right Arrow "ONLY" Sign (R3-5R)              |
|  | Proposed "U-TURN YIELD TO RIGHT TURN" Sign (R10-16)   |  | Existing "U-TURN YIELD TO RIGHT TURN" Sign (R10-16)   |

Signal Upgrade

US 401 (Ramsey Street) at Methodist University / Fernwood Drive

Division 6 Cumberland County Fayetteville

PLAN DATE: August 2016 REVIEWED BY: JPG

PREPARED BY: KGP, Jr. REVIEWED BY:

750 N. Greenfield Pkwy, Garner, NC 27529

SCALE 0 40 1"=40'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL NORTH CAROLINA PROFESSIONAL ENGINEER JASON P. GALLOWAY 029904

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

SIG. INVENTORY NO. 06-0785

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