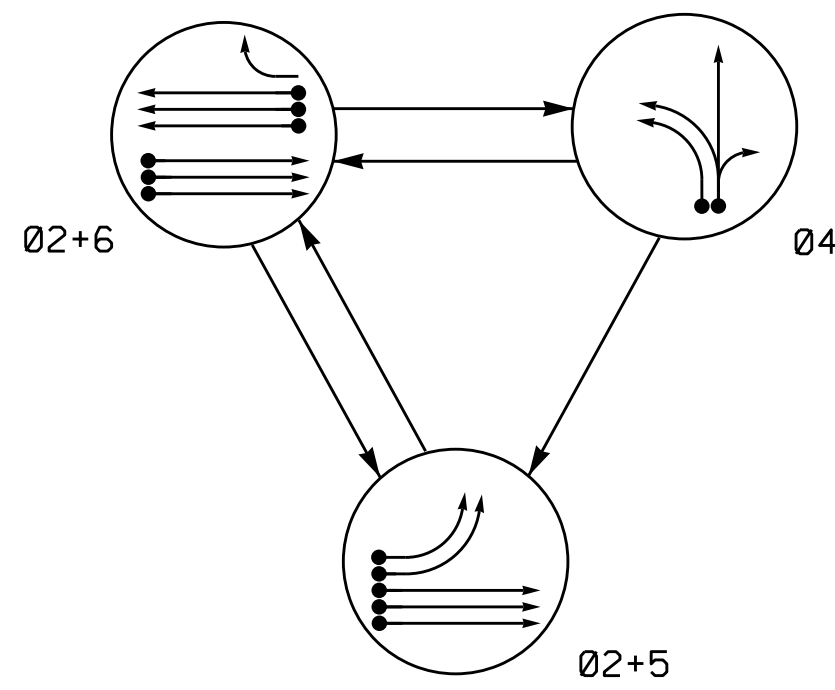


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

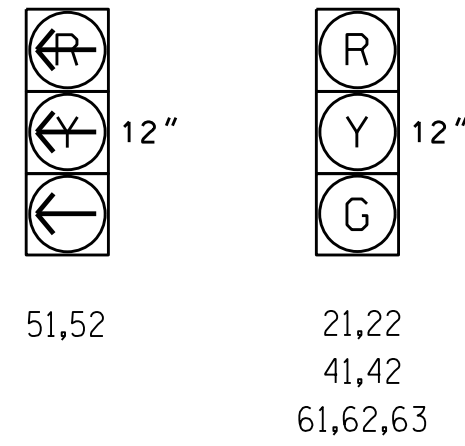
- ←● DETECTED MOVEMENT
- ←○ UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- ←- - PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE			
	02+5	02+6	04	FLASH
21,22	G	G	R	Y
41,42	R	R	G	R
51,52	-	-R	-R	-R
61,62,63	R	G	R	Y

SIGNAL FACE I.D.

All Heads L.E.D.



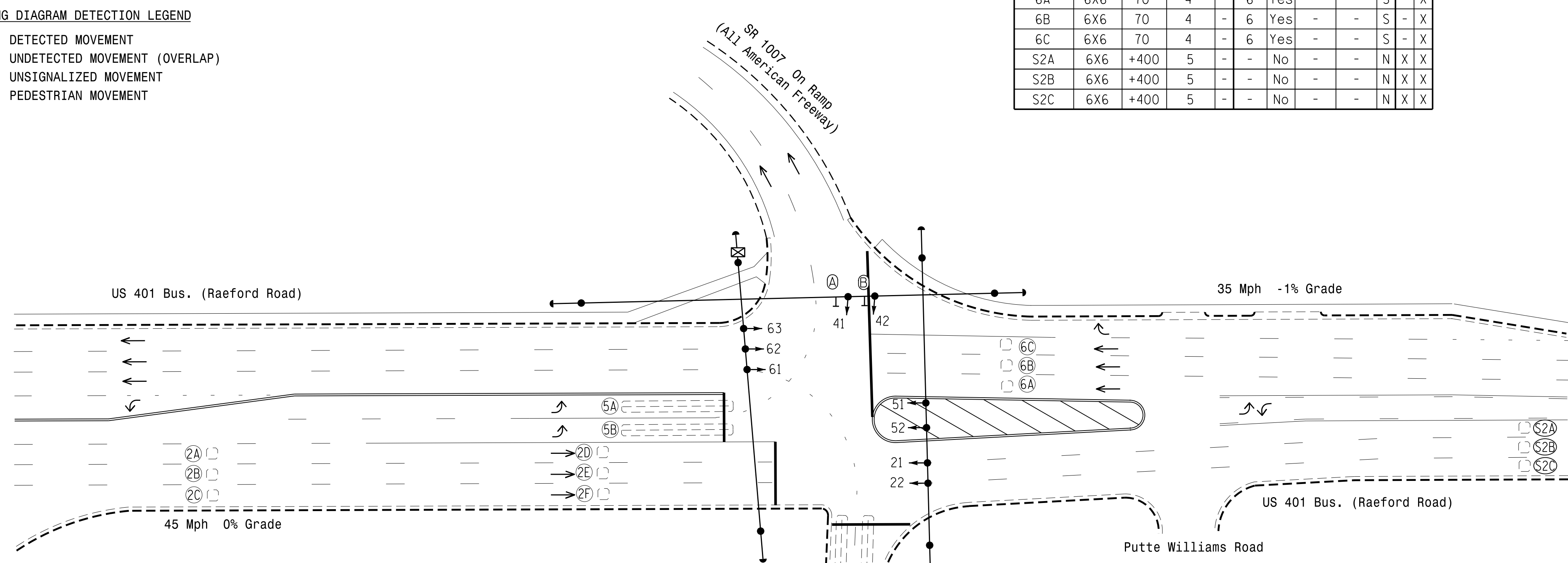
ASC/3 DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING						
					PHASE	CALLING	EXTEND TIME	DELAY TIME	TYPE	SYSTEM LOOP	NEW CARD
2A	6X6	300	5	-	2	Yes	1.6	-	S	-	X
2B	6X6	300	5	-	2	Yes	1.6	-	S	-	X
2C	6X6	300	5	-	2	Yes	1.6	-	S	-	X
2D	6X6	90	4	-	2	Yes	-	-	S	-	X
2E	6X6	90	4	-	2	Yes	-	-	S	-	X
2F	6X6	90	4	-	2	Yes	-	-	S	-	X
4A	6X60	+5	2-4-2	-	4	Yes	-	-	S	-	X
4B	6X60	+5	2-4-2	-	4	Yes	-	-	S	-	X
5A	6X60	+5	2-4-2	-	5	Yes	-	-	S	-	X
5B	6X60	+5	2-4-2	-	5	Yes	-	-	S	-	X
6A	6X6	70	4	-	6	Yes	-	-	S	-	X
6B	6X6	70	4	-	6	Yes	-	-	S	-	X
6C	6X6	70	4	-	6	Yes	-	-	S	-	X
S2A	6X6	+400	5	-	No	-	-	-	N	X	X
S2B	6X6	+400	5	-	No	-	-	-	N	X	X
S2C	6X6	+400	5	-	No	-	-	-	N	X	X

3 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 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.
- 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			
	2	4	5	6
Min Green *	12	7	7	10
Walk *	0	0	0	0
Ped Clear	0	0	0	0
Veh. Extension *	2.0	2.0	2.0	3.0
Max 1 *	60	30	45	60
Yellow	4.5	3.6	3.0	4.5
Red Clear	1.2	3.3	3.5	1.2
Actuations B4 Add *	-	-	-	-
Seconds /Actuation *	-	-	-	-
Max Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Locking Detector	X	-	-	X
Recall Position	VEH. RECALL	-	-	VEH. RECALL
Dual Entry	-	-	-	-
Simultaneous Gap	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 Sign   |  | Existing Sign                              |
|  | Proposed Pedestrian Signal Head With Push Button & Sign |  | Existing Pedestrian Signal Head            |
|  | Proposed Signal Pole with Guy                           |  | Existing Signal Pole with Guy              |
|  | Proposed Signal Pole with Sidewalk Guy                  |  | Existing Signal Pole with Sidewalk 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 Left Arrow "ONLY" Sign (R3-5L)                 |  | Existing Left Arrow "ONLY" Sign (R3-5L)    |
|  | Proposed Dual Turn and Through Arrows Sign              |  | Existing Dual Turn and Through Arrows Sign |

Signal Upgrade

US 401 Bus. (Raeford Road) at SR 1007 (All American Expressway) Northbound Ramps

Division 6 Cumberland County Fayetteville

PLAN DATE: May 2016 REVIEWED BY: JPG

PREPARED BY: JPG/KGP, Jr. REVIEWED BY: JPG

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

DATE: 7/20/2016

SIG. INVENTORY NO. 06-0323

10-11-2016 15:44  
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 ksp@ncdot.gov