PHASING DIAGRAM

Ø2+6

Ø3

Ø4

PHASING DIAGRAM DETECTION LEGEND

→● DETECTED MOVEMENT
→ UNDETECTED MOVEMENT (OVERLAP)
◄-- UNSIGNALIZED MOVEMENT
◄---- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2+6	Ø3	Ø4	FLASH
21, 22	G	R	R	Y
23	G	R	R	Y
31, 32	R	R	R	R
33, 34	R	G	R	R
41	R	R	G	R
42	R	R	G	R
61, 62	G	R	R	Y
P41, P42	DW	DW	W	DRK
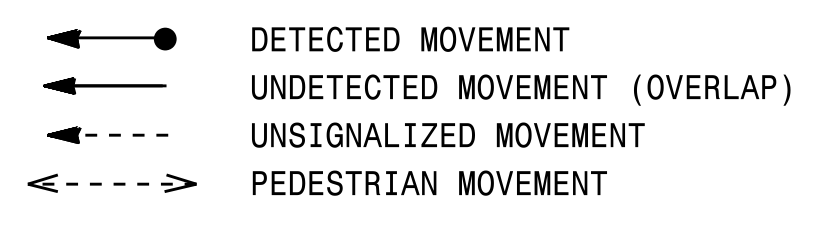
SIGNAL FACE I.D.

All Heads L.E.D.

31, 32   41   21, 22   23   P41, P42
                33, 34
                42
                61, 62

ASC/3 DETECTOR INSTALLATION CHART

LOOP	DETECTOR SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING PHASE	CALLING	EXTEND TIME	DELAY TIME	TYPE	SYSTEM LOOP	NEW CARD
2A/S2A	6X6	300	5	–	2	Yes	–	–	N	X	X
2B/S2B	6X6	300	5	–	2	Yes	–	–	N	X	X
2C	6X40	0	2-4-2	–	2	Yes	–	3	G	–	X
3A	6X40	0	2-4-2	–	3	Yes	–	–	S	–	X
3B	6X40	0	2-4-2	–	3	Yes	–	–	S	–	X
3C	6X40	0	2-4-2	–	3	Yes	–	10	S	–	X
4A	6X40	0	2-4-2	–	4	Yes	–	3	S	–	X
4B	6X40	0	2-4-2	–	4	Yes	–	10	S	–	X
6A/S6A	6X6	300	5	–	6	Yes	–	–	N	X	X
6B/S6B	6X6	300	5	–	6	Yes	–	–	N	X	X
6C	6X40	0	2-4-2	–	6	Yes	–	3	G	–	X

3 Phase
Fully Actuated
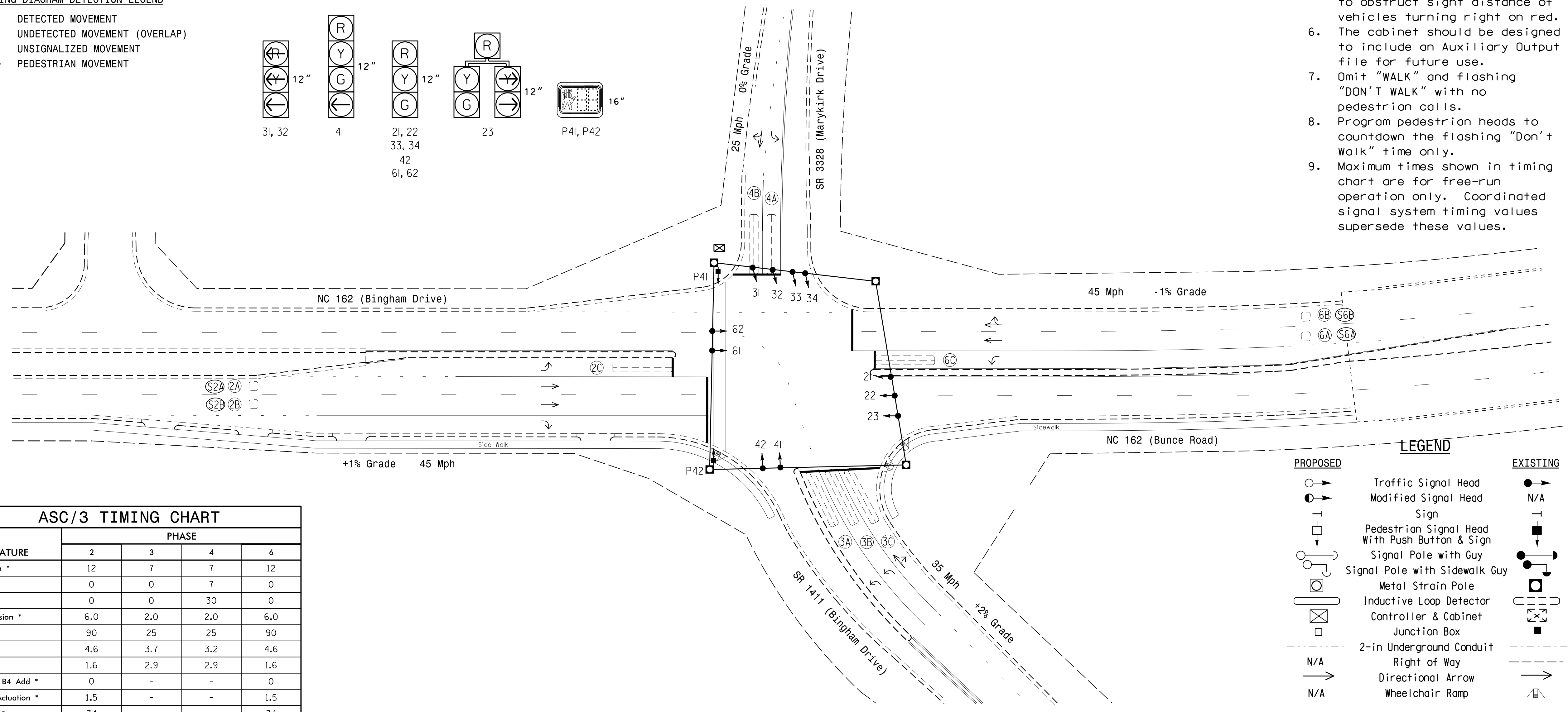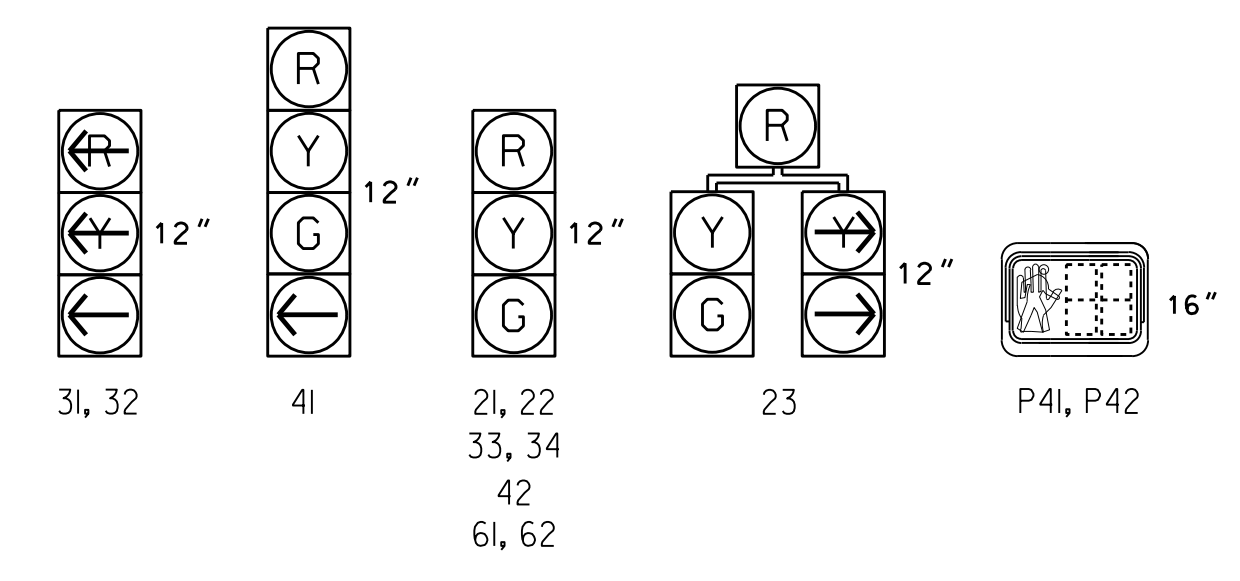## Fayetteville Signal System

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. The order of phase 3 and phase 4 may be reversed.
4. Set all detector units to presence mode.
5. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
6. The cabinet should be designed to include an Auxiliary Output file for future use.
7. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
8. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
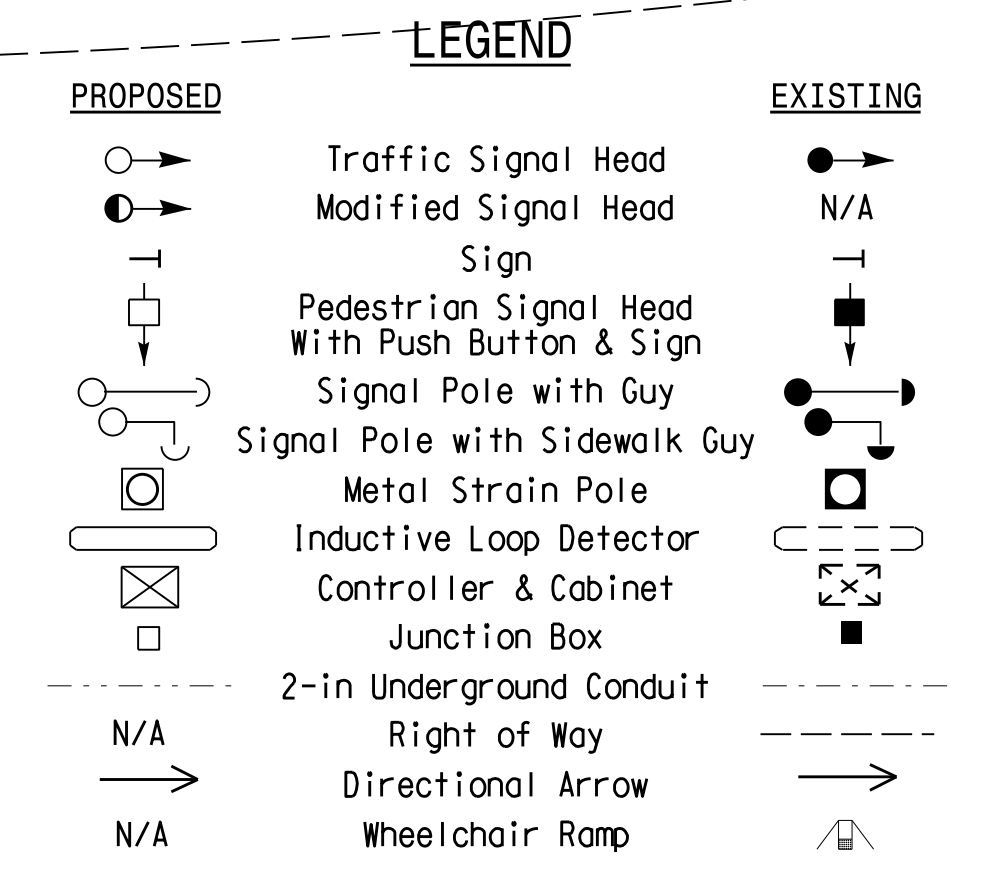
ASC/3 TIMING CHART

FEATURE	PHASE 2	3	4	6
Min Green *	12	7	7	12
Walk *	0	0	7	0
Ped Clear *	0	0	30	0
Veh. Extension *	6.0	2.0	2.0	6.0
Max 1 *	90	25	25	90
Yellow	4.6	3.7	3.2	4.6
Red Clear	1.6	2.9	2.9	1.6
Actuations B4 Add *	0	–	–	0
Seconds /Actuation *	1.5	–	–	1.5
Max Initial *	34	–	–	34
Time Before Reduction *	15	–	–	15
Time To Reduce *	30	–	–	30
Minimum Gap	3.0	–	–	3.0
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		EXISTING
Traffic Signal Head	○→		●→
Modified Signal Head	◑→		N/A
Sign	⊢		■
Pedestrian Signal Head With Push Button & Sign			
Signal Pole with Guy	○━		●━
Signal Pole with Sidewalk Guy	○━		
Metal Strain Pole	⊡		□
Inductive Loop Detector			
Controller & Cabinet	⊠		⊠
Junction Box	□		
2-in Underground Conduit	---		
Right of Way	N/A		----
Directional Arrow	→		
Wheelchair Ramp	N/A		◿

NC 162 (Bingham Drive)
NC 162 (Bunce Road)
SR 3328 (Marykirk Drive)
SR 1141 (Bingham Drive)
0% Grade
25 Mph
45 Mph   -1% Grade
+1% Grade   45 Mph
35 Mph   +2% Grade

Signal Upgrade

NC 162 (Bingham Dr./Bunce Rd.)
at
SR 1141 (Bingham Dr.) /
SR 3328 (Marykirk Dr.)
Division 6   Cumberland County   Fayetteville

PLAN DATE:	June 2016	REVIEWED BY:	JPG
PREPARED BY:	KGP, Jr.	REVIEWED BY:	
REVISIONS		INIT.	DATE

SEAL
NORTH CAROLINA
PROFESSIONAL
SEAL
029904
ENGINEER
JASON P. GALLOWAY

Jason P. Galloway   6/17/2016
DATE
SIG. INVENTORY NO.   06-1266

SCALE	
0	40
1"=40'	