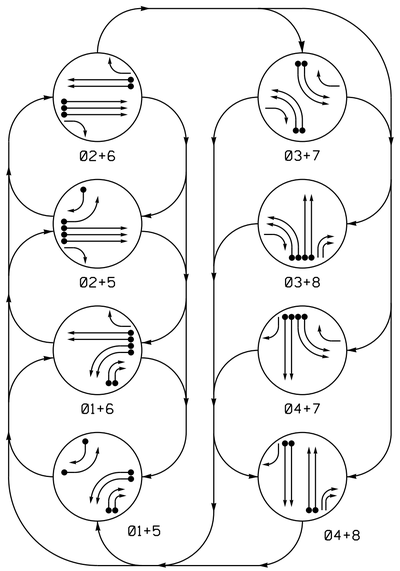
PROJECT REFERENCE NO.	SHEET NO.
U-5742	Sig. 66.0

8 Phase Fully Actuated Fayetteville Signal System

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8	FLASH
11, 12	←	←	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
21, 22, 24	R	R	G	G	R	R	R	R	Y
23	R	R	G	G	R/→	R/→	R	R	Y
31, 32	~~R~~	~~R~~	~~R~~	~~R~~	←	←	~~R~~	~~R~~	~~R~~
41, 43	R	R	R	R	R	R	G	G	R
42	R/→	R	R/→	R	R	R	G	G	R
51	←	~~R~~	←	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
61, 63	R	G	R	G	R	R	R	R	Y
62	R	G	R	G	R/→	R	R/→	R	Y
71, 72	~~R~~	~~R~~	~~R~~	~~R~~	←	~~R~~	←	~~R~~	~~R~~
81, 82, 85	R	R	R	R	R	G	R	G	R
83, 84	R/→	R/→	R	R	R	G	R	G	R

SIGNAL FACE I.D.

All Heads L.E.D.

11, 12
31, 32
51
71, 72

21, 22, 24
41, 43
61, 63
81, 82, 85

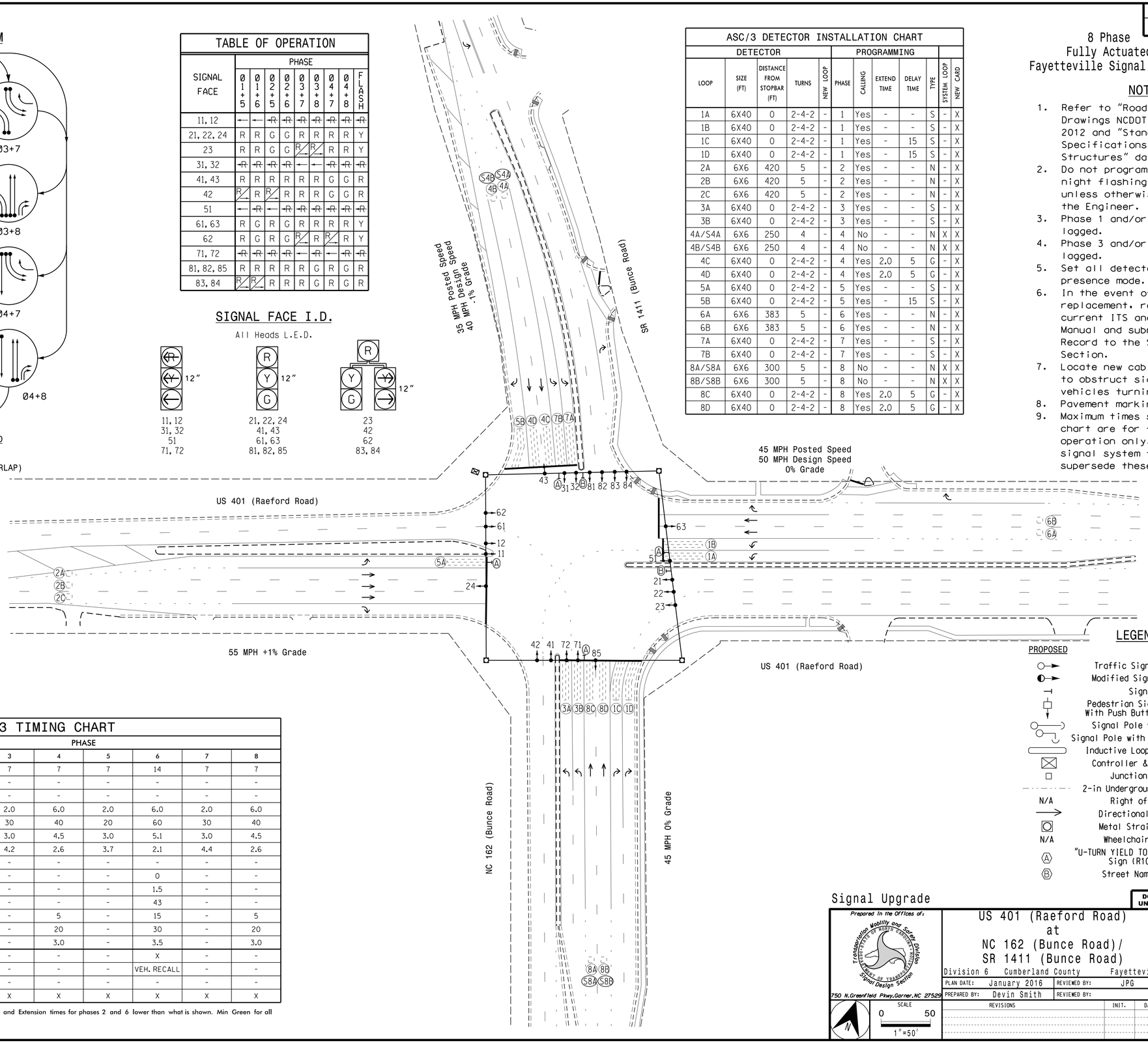
23
42
62
83, 84

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	-	-	S	-	X
1B	6X40	0	2-4-2	-	1	Yes	-	-	S	-	X
1C	6X40	0	2-4-2	-	1	Yes	-	15	S	-	X
1D	6X40	0	2-4-2	-	1	Yes	-	15	S	-	X
2A	6X6	420	5	-	2	Yes	-	-	N	-	X
2B	6X6	420	5	-	2	Yes	-	-	N	-	X
2C	6X6	420	5	-	2	Yes	-	-	N	-	X
3A	6X40	0	2-4-2	-	3	Yes	-	-	S	-	X
3B	6X40	0	2-4-2	-	3	Yes	-	-	S	-	X
4A/S4A	6X6	250	4	-	4	No	-	-	N	X	X
4B/S4B	6X6	250	4	-	4	No	-	-	N	X	X
4C	6X40	0	2-4-2	-	4	Yes	2.0	5	G	-	X
4D	6X40	0	2-4-2	-	4	Yes	2.0	5	G	-	X
5A	6X40	0	2-4-2	-	5	Yes	-	-	S	-	X
5B	6X40	0	2-4-2	-	5	Yes	-	15	S	-	X
6A	6X6	383	5	-	6	Yes	-	-	N	-	X
6B	6X6	383	5	-	6	Yes	-	-	N	-	X
7A	6X40	0	2-4-2	-	7	Yes	-	-	S	-	X
7B	6X40	0	2-4-2	-	7	Yes	-	-	S	-	X
8A/S8A	6X6	300	5	-	8	No	-	-	N	X	X
8B/S8B	6X6	300	5	-	8	No	-	-	N	X	X
8C	6X40	0	2-4-2	-	8	Yes	2.0	5	G	-	X
8D	6X40	0	2-4-2	-	8	Yes	2.0	5	G	-	X

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. Phase 1 and/or phase 5 may be lagged.
4. Phase 3 and/or phase 7 may be lagged.
5. Set all detector units to presence mode.
6. 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.
7. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
8. Pavement markings are existing.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



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	●↓
▭	Inductive Loop Detector	▭
⊠	Controller & Cabinet	⊠
□	Junction Box	■
·-·-·	2-in Underground Conduit	·-·-·
N/A	Right of Way	– – –
→	Directional Arrow	→
◯	Metal Strain Pole	◘
N/A	Wheelchair Ramp	◢
Ⓐ	"U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	Ⓐ
Ⓑ	Street Name Sign	Ⓑ

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 *	-	-	-	-	-	-	-	-
Ped Clear	-	-	-	-	-	-	-	-
Veh. Extension *	2.0	6.0	2.0	6.0	2.0	6.0	2.0	6.0
Max 1 *	20	60	30	40	20	60	30	40
Yellow	3.0	5.1	3.0	4.5	3.0	5.1	3.0	4.5
Red Clear	4.2	2.1	4.2	2.6	3.7	2.1	4.4	2.6
Red Revert	-	-	-	-	-	-	-	-
Actuations B4 Add *	-	0	-	-	-	0	-	-
Seconds /Actuation *	-	1.5	-	-	-	1.5	-	-
Max Initial *	-	46	-	-	-	43	-	-
Time Before Reduction *	-	15	-	5	-	15	-	5
Time To Reduce *	-	30	-	20	-	30	-	20
Minimum Gap	-	3.4	-	3.0	-	3.5	-	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.

Signal Upgrade

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared In the Offices of:
Transportation Mobility and Safety Division
Signal Design Section
750 N.Greenfield Pkwy.Garner,NC 27529

US 401 (Raeford Road) at NC 162 (Bunce Road)/ SR 1411 (Bunce Road)

Division 6 Cumberland County Fayetteville

PLAN DATE: January 2016 REVIEWED BY: JPG

PREPARED BY: Devin Smith REVIEWED BY:

SCALE 0 50 1"=50'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 029904 ENGINEER JASON P. GALLOWAY

DocuSigned by: Jason P. Galloway 6/15/2016
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SIG. INVENTORY NO. 06-0274

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