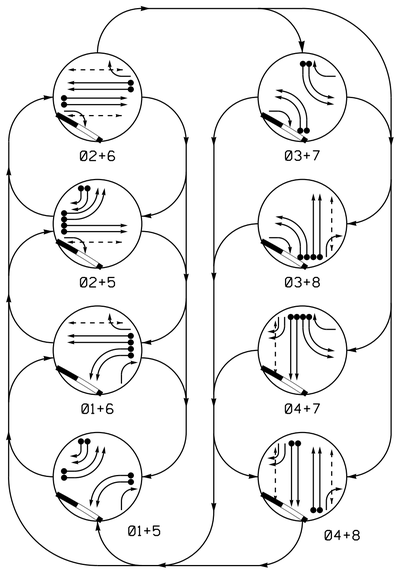
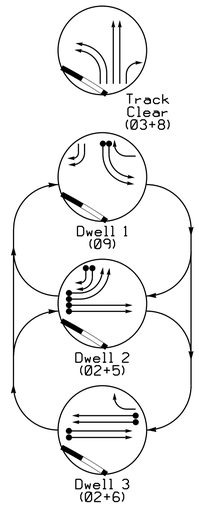
PROJECT REFERENCE NO.	SHEET NO.
U-5742	Sig.139.0

PHASING DIAGRAM



RAIL PREEMPT PHASES

(High Priority)



SIGNAL FACE I.D.

All Heads L.E.D.

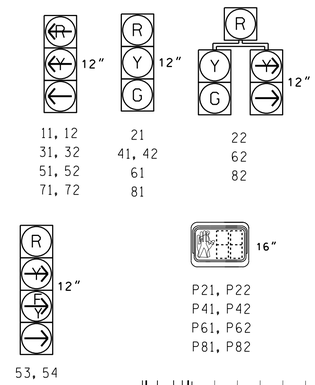


TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8	TC Trigger	OVERLAP 1	OVERLAP 2	OVERLAP 3	FLASH
11,12	←	←	R	R	R	R	R	R	R	R	R	R	R
21	R	R	G	G	R	R	R	R	R	R	G	G	Y
22	R	R	G	G	R/	R/	R	R	R	R	G	G	Y
31,32	R	R	R	R	←	←	R	R	←	R	R	R	R
41,42	R	R	R	R	R	R	G	G	R	R	R	R	R
51,52	←	R	←	R	R	R	R	R	R	←	←	R	R
53,54	→	R	→	R	R	R	F Y	F Y	R	F Y	→	R	R
61	R	G	R	G	R	R	R	R	R	R	R	G	Y
62	R	G	R	G	R/	R	R/	R	R	R/	R	G	Y
71,72	R	R	R	R	←	R	←	R	R	←	R	R	R
81	R	R	R	R	G	R	G	G	G	R	R	R	R
82	R/	R/	R	R	G	R	G	G	G	R	R	R	R
P21,P22	DW	DW	W	W	DW	DW	DW	DW	DW	DW	DW	DW	DRK
P41,P42	DW	DW	DW	DW	DW	DW	W	W	DW	DW	DW	DW	DRK
P61,P62	DW	W	DW	W	DW	DW	DW	DW	DW	DW	DW	DW	DRK
P81,P82	DW	DW	DW	DW	DW	W	DW	W	DW	DW	DW	DW	DRK
Sign "A"	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	*

* See Note 9

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	-	3	S	-	X
1B	6X40	0	2-4-2	-	1	Yes	-	-	S	-	X
1C	6X40	0	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	0	2-4-2	-	3	Yes	-	-	S	-	X
4A	6X40	0	2-4-2	-	4	Yes	-	-	S	-	X
4B	6X40	0	2-4-2	-	4	Yes	-	-	S	-	X
5A	6X40	0	2-4-2	-	5	Yes	-	3	S	-	X
5B	6X40	0	2-4-2	-	5	Yes	-	-	S	-	X
5C	6X40	0	2-4-2	-	5	Yes	-	15	S	-	X
5D	6X40	0	2-4-2	-	5	Yes	-	15	S	-	X
6A	6X6	300	4	-	6	Yes	-	-	N	-	X
6B	6X6	300	4	-	6	Yes	-	-	N	-	X
7A	6X40	0	2-4-2	-	7/9	Yes	-	-	S	-	X
7B	6X40	0	2-4-2	-	7/9	Yes	-	-	S	-	X
8A	6X40	0	2-4-2	-	8	Yes	-	-	S	-	X
8B	6X40	0	2-4-2	-	8	Yes	-	-	S	-	X

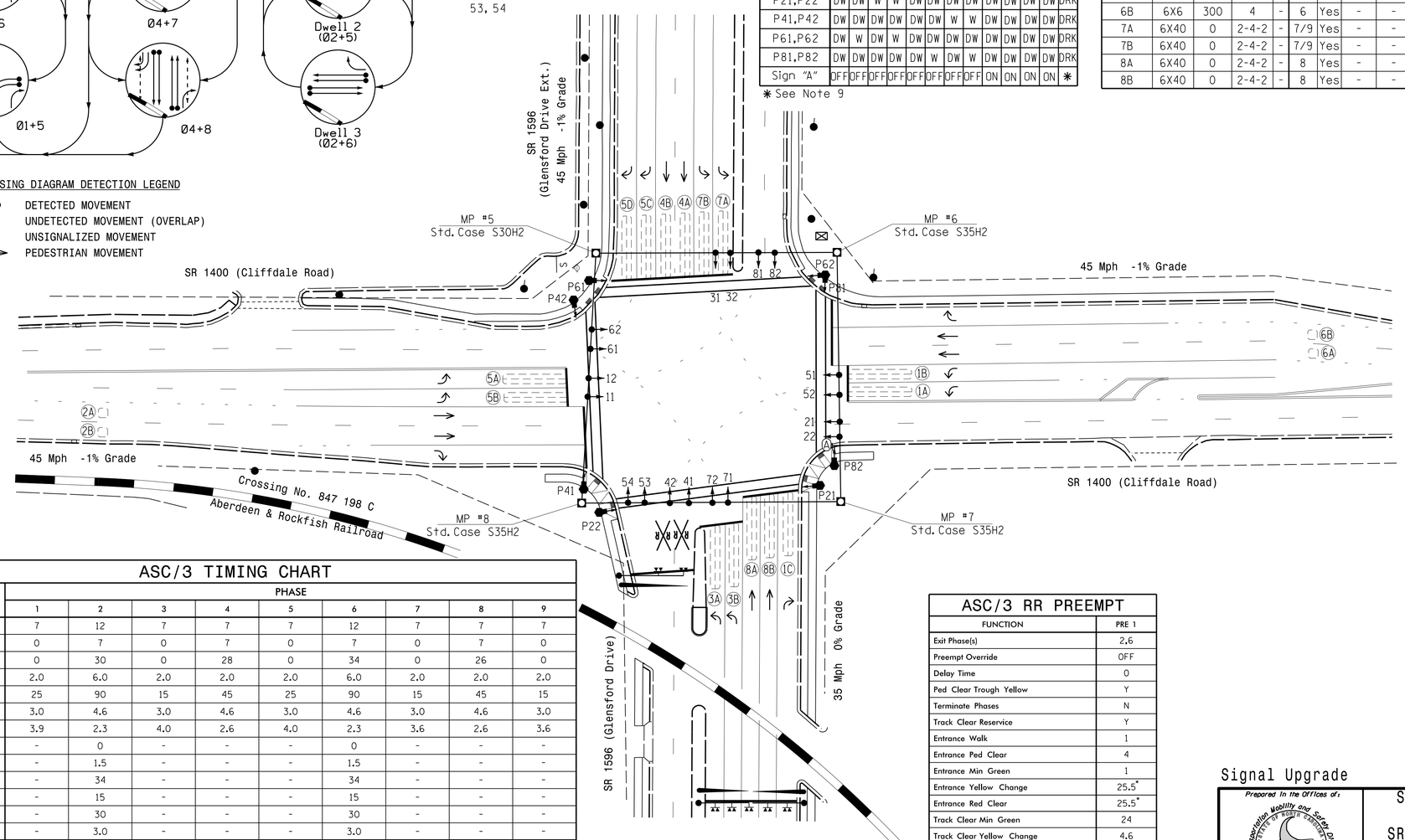
8 Phase
Fully Actuated w/ RR Preemption
Fayetteville Signal System

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
2. This location contains railroad preemption phasing. Do not program signal for late night flashing operation.
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. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
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. Ensure flashing operation does not alter operation of blankout signs.
10. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

PHASING DIAGRAM DETECTION LEGEND

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



ASC/3 TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6	7	8	9
Min Green *	7	12	7	7	7	12	7	7	7
Walk *	0	7	0	7	0	7	0	7	0
Ped Clear	0	30	0	28	0	34	0	26	0
Veh. Extension *	2.0	6.0	2.0	2.0	2.0	6.0	2.0	2.0	2.0
Max 1 *	25	90	15	45	25	90	15	45	15
Yellow	3.0	4.6	3.0	4.6	3.0	4.6	3.0	4.6	3.0
Red Clear	3.9	2.3	4.0	2.6	4.0	2.3	3.6	2.6	3.6
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	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.

ASC/3 RR PREEMPT

FUNCTION	PRE 1
Exit Phase(s)	2,6
Preempt Override	OFF
Delay Time	0
Ped Clear Trough Yellow	Y
Terminate Phases	N
Track Clear Reservice	Y
Entrance Walk	1
Entrance Ped Clear	4
Entrance Min Green	1
Entrance Yellow Change	25.5*
Entrance Red Clear	25.5*
Track Clear Min Green	24
Track Clear Yellow Change	4.6
Track Clear Red Clear	2.6
Min Dwell Time	7
Exit Yellow Change	25.5*
Exit Red Clear	25.5*

* Allows normal phase times to be used.

Simultaneous Preemption

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	
N/A	Railroad Tracks	
N/A	Fire Hydrant	
N/A	Wheelchair Ramp	
	Type II Signal Pedestal	
	"NO RIGHT TURN - TRAIN" LED Blankout Sign	

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

SR 1400 (Cliffdale Road)
at
SR 1596 (Glensford Drive) /
Glensford Drive Extension

Division 6 Cumberland County Fayetteville

PLAN DATE: February 2016 REVIEWED BY: JPG
PREPARED BY: JRS/JPG REVIEWED BY:

SCALE 0 40 1"=40'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 029904 ENGINEER JASON P. GALLOWAY

DocuSigned by: Jason P. Galloway
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9/9/2016
DATE

SIG. INVENTORY NO. 06-0527

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