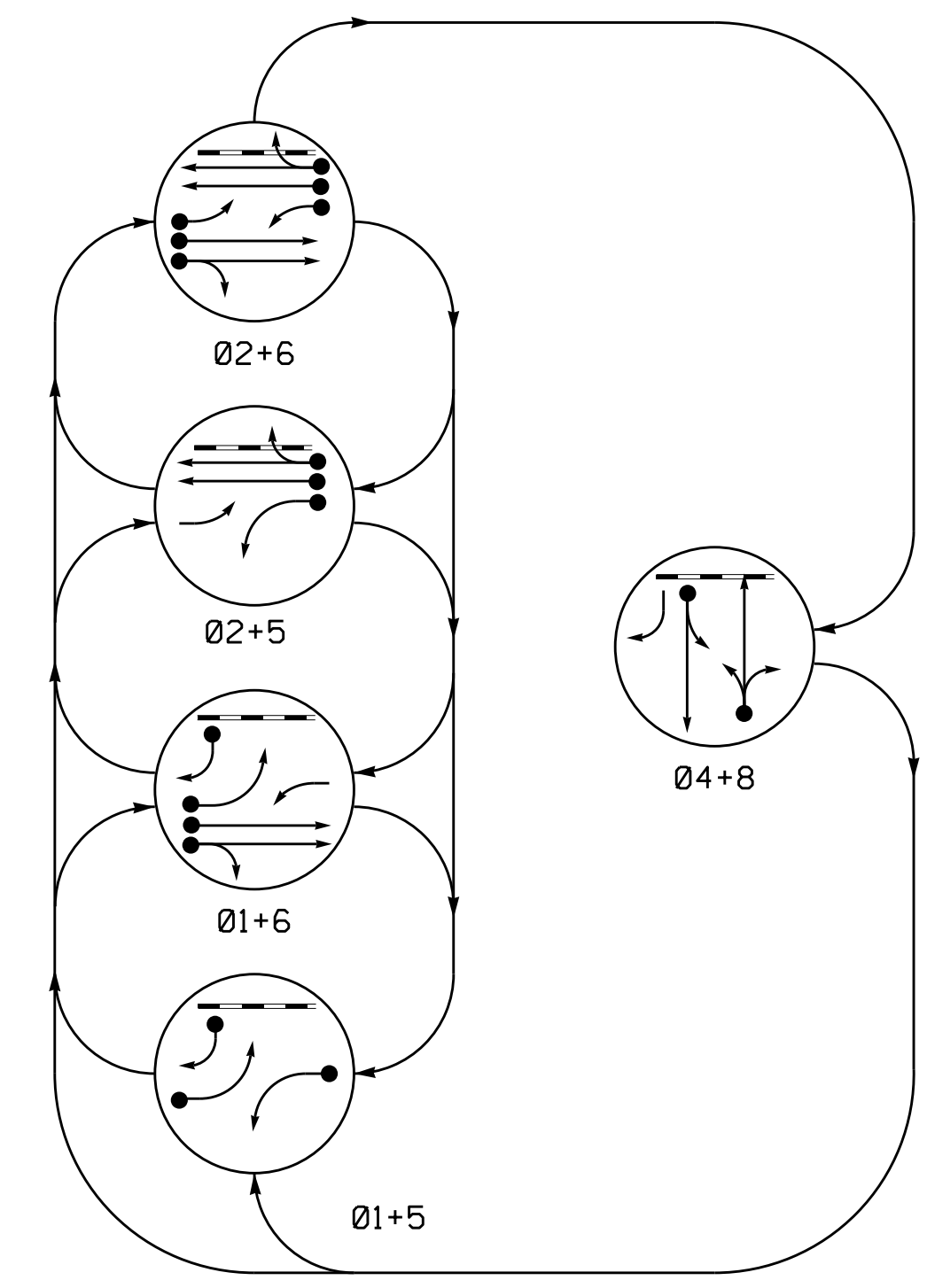


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND
 ← ● → DETECTED MOVEMENT
 ← ○ → UNDETECTED MOVEMENT (OVERLAP)
 ← - - - → UNSIGNALIZED MOVEMENT
 ← - - - P → PEDESTRIAN MOVEMENT

RAIL PREEMPT PHASES
(High Priority)

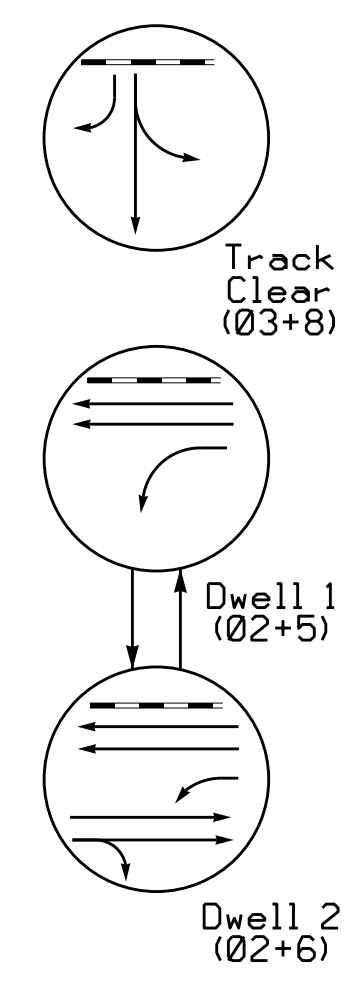


TABLE OF OPERATION

SIGNAL FACE	PHASE											
	01+5	01+6	02+5	02+6	04+8	TRUCK	RR	RR	RR	RR	RR	RR
11	←	←	←	←	←	←	←	←	←	←	←	←
21,22	R	R	G	G	R	R	G	G	Y			
41,42	R	R	R	R	G	R	R	R	R			
51	←	←	←	←	←	←	←	←	←	←	←	←
61,62	R	G	R	G	R	R	R	G	Y			
81	R	R	R	R	G	G	R	R	R			
82	R	R	R	R	G	G	R	R	R			
Sign B	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	*		

* See Note #8

ASC/3 DETECTOR INSTALLATION CHART

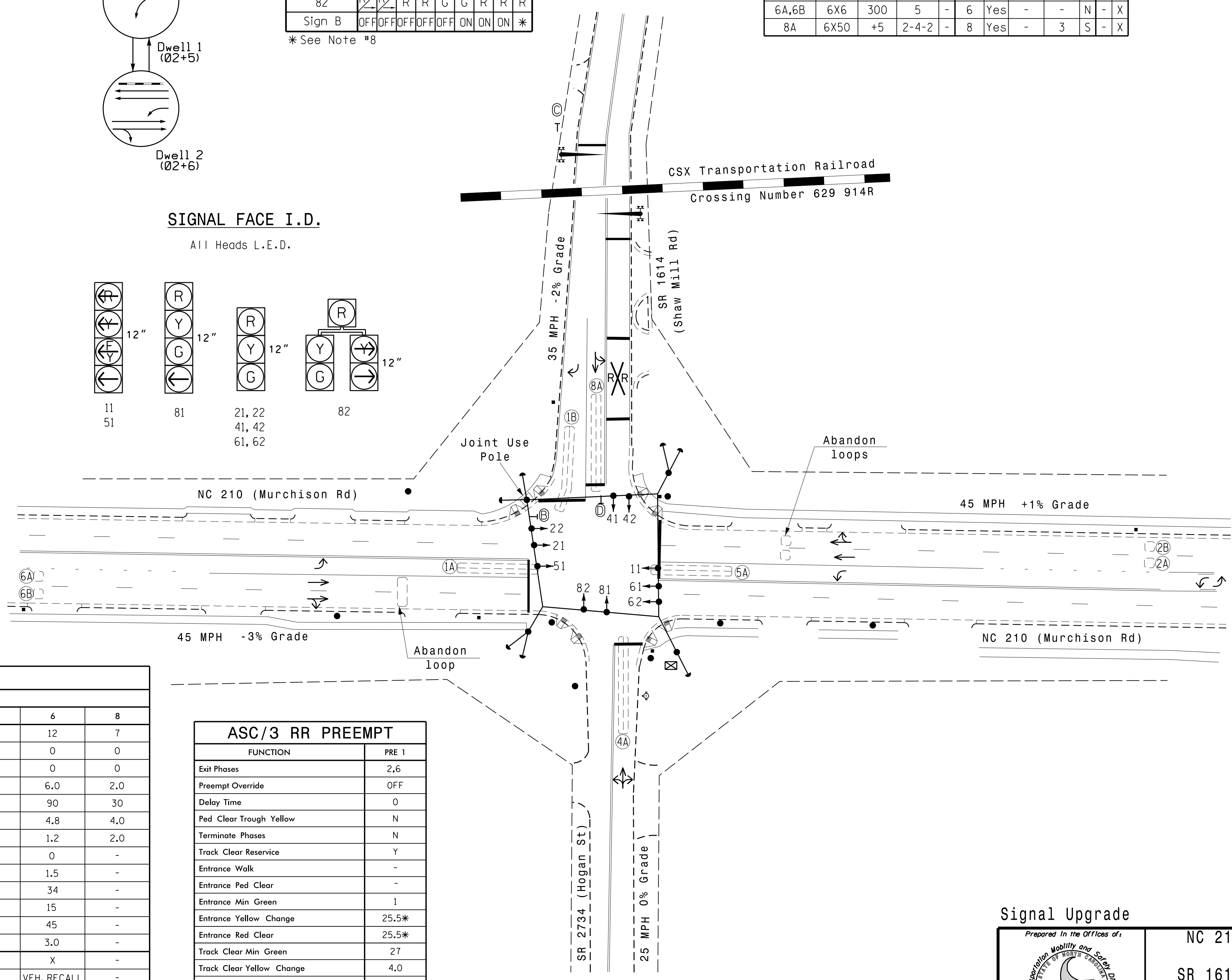
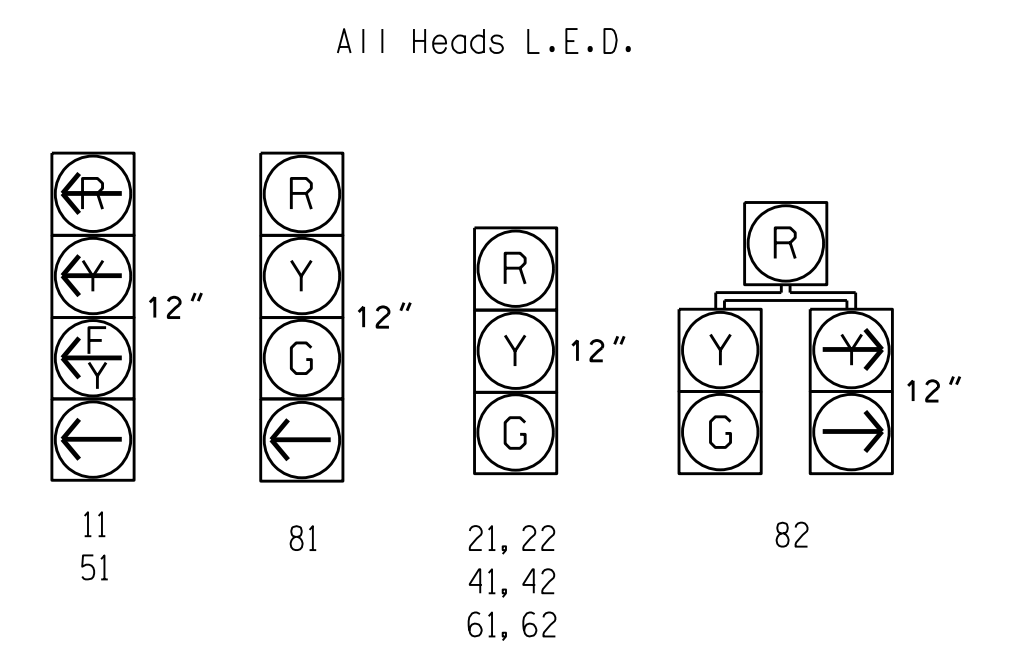
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING						
					PHASE	CALLING	EXTEND TIME	DELAY TIME	TYPE	SYSTEM LOOP NEW CARD	
1A	6X50	+5	2-4-2	-	1	Yes	-	15	S	-	X
					6	Yes	-	3	G	-	X
1B	6X50	+5	2-4-2	-	1	Yes	-	15	S	-	X
2A,2B	6X6	300	5	-	2	Yes	-	-	N	-	X
4A	6X50	+5	2-4-2	-	4	Yes	-	10	S	-	X
5A	6X50	+5	2-4-2	-	5	Yes	-	15	S	-	X
6A,6B	6X6	300	5	-	2	Yes	-	3	G	-	X
8A	6X50	+5	2-4-2	-	8	Yes	-	3	S	-	X

5 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. Set all detector units to presence mode.
5. 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.
6. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
7. Pavement markings are existing.
8. Ensure flashing operation does not alter operation of blankout signs.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

SIGNAL FACE I.D.



LEGEND

PROPOSED	EXISTING
○ → Traffic Signal Head	● → N/A
○ → Modified Signal Head	○ → N/A
○ → Pedestrian Signal Head With Push Button & Sign	○ → N/A
○ → Signal Pole with Guy	○ → N/A
○ → Signal Pole with Sidewalk Guy	○ → N/A
○ → Inductive Loop Detector	○ → N/A
○ → Controller & Cabinet	○ → N/A
○ → Junction Box	○ → N/A
○ → 2-in Underground Conduit	○ → N/A
○ → Right of Way	○ → N/A
○ → Directional Arrow	○ → N/A
○ → Railroad Tracks	○ → N/A
○ → Railroad Gate and Flasher	○ → N/A
○ → "NO RIGHT TURN - TRAIN" LED Blank Out Sign	○ → N/A
○ → "DO NOT STOP ON TRACKS" Sign (R8-8)	○ → N/A
○ → "ONCOMING TRAFFIC MAY HAVE EXTENDED GREEN" Sign (W25-2)	○ → N/A

ASC/3 TIMING CHART

FEATURE	PHASE					
	1	2	4	5	6	8
Min Green *	7	12	7	7	12	7
Walk *	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Veh. Extension *	2.0	6.0	2.0	2.0	6.0	2.0
Max 1 *	30	90	30	20	90	30
Yellow	3.0	4.8	4.0	3.0	4.8	4.0
Red Clear	1.6	1.2	2.0	2.1	1.2	2.0
Actuations B4 Add *	-	0	-	-	0	-
Seconds / Actuation *	-	1.5	-	-	1.5	-
Max Initial *	-	34	-	-	34	-
Time Before Reduction *	-	15	-	-	15	-
Time To Reduce *	-	45	-	-	45	-
Minimum Gap	-	3.0	-	-	3.0	-
Locking Detector	-	X	-	-	X	-
Recall Position	-	VEH. RECALL	-	-	VEH. RECALL	-
Dual Entry	-	-	X	-	-	X
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.

ASC/3 RR PREEMPT

FUNCTION	PRE 1
Exit Phases	2,6
Preempt Override	OFF
Delay Time	0
Ped Clear Trough Yellow	N
Terminate Phases	N
Track Clear Reserve	Y
Entrance Walk	-
Entrance Ped Clear	-
Entrance Min Green	1
Entrance Yellow Change	25.5*
Entrance Red Clear	25.5*
Track Clear Min Green	27
Track Clear Yellow Change	4.0
Track Clear Red Clear	2.0
Min Dwell Time	7
Exit Yellow Change	25.5*
Exit Red Clear	25.5*

* Allows normal phase times to be used.
Simultaneous Preemption

Signal Upgrade

750 N. Greenfield Pkwy, Garner, NC 27529

Prepared In the Offices of:
 TRANSPORTATION MOBILITY AND SAFETY DIVISION
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 Signal Design Section

NC 210 (Murchison Road) at SR 1614 (Shaw Mill Road) / SR 2734 (Hogan Street)

Division 6 Cumberland County Fayetteville

PLAN DATE: March 2016 REVIEWED BY: JPG, PE

PREPARED BY: EM Minshew REVIEWED BY:

REVISIONS: INIT. DATE

SCALE: 0 40 1"=40'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 029904
 JASON P. GALLAGHER
 ENGINEER

DocuSigned by:
 Jason P. Gallaghy 8/24/2016
 F70EA74B1841D DATE

SIG. INVENTORY NO. 06-0333

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