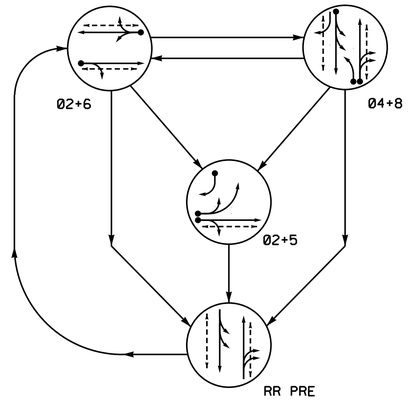
PROJECT REFERENCE NO.	SHEET NO.
U-5742	SIG.273.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

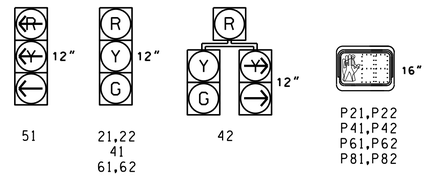
TABLE OF OPERATION

SIGNAL FACE	PHASE 02+5	02+6	04+8	RR PRE	FLASH
21, 22	G	G	R	R	Y
41	R	R	G	G	R
42	R/—	R	G	G	R
51	~~—~~	~~R~~	~~R~~	~~R~~	~~R~~
61, 62	R	G	R	R	Y
81, 82	R	R	G	G	R
P21, P22	W	W	DW	DW	DRK
P41, P42	DW	DW	W	W	DRK
P61, P62	DW	W	DW	DW	DRK
P81, P82	DW	DW	W	W	DRK
A	OFF	OFF	OFF	ON	✳
B	OFF	OFF	OFF	ON	✳

✳ SEE NOTE 12

SIGNAL FACE I.D.

All Heads L.E.D.



51 — 21,22 41 61,62 81,82 — 42 — P21,P22 P41,P42 P61,P62 P81,P82

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
2A	6X6	70	✳	-	2	Yes	-	-	S	-	N
4A	6X60	0	2-4-2	-	4	Yes	-	3	S	-	Y
5A	6X60	0	✳	-	5	Yes	-	3	S	-	N
5B	6X60	0	2-4-2	-	5	Yes	-	15	S	-	Y
				-	4	Yes	-	-	G	-	Y
6A	6X6	70	✳	-	6	Yes	-	-	S	-	N
8A	6X60	0	2-4-2	-	8	Yes	-	3	S	-	Y
8B	6X60	0	2-4-2	-	8	Yes	-	10	S	-	Y

✳ Video Detection Zone

3 PHASE FULLY ACTUATED w/ RAILROAD 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. Pavement markings are existing.
3. Locate new cabinet on existing foundation.
4. Omit phase 5 during phase 6 on.
5. Wire cabinet to allow the controller to clear from phase 2+6 to phase 2+5 by progressing through phase 4+8 (see electrical details).
6. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
7. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
8. Program all signal heads for the same approach to flash concurrently during flashing operation.
9. Program phase 4 and phase 8 for dual entry.
10. Set all detector units to presence mode.
11. Begin preemption sequence immediately after track call.
12. Ensure flashing operation does not alter operation of blankout signs.

ASC/3 RR PREEMPT

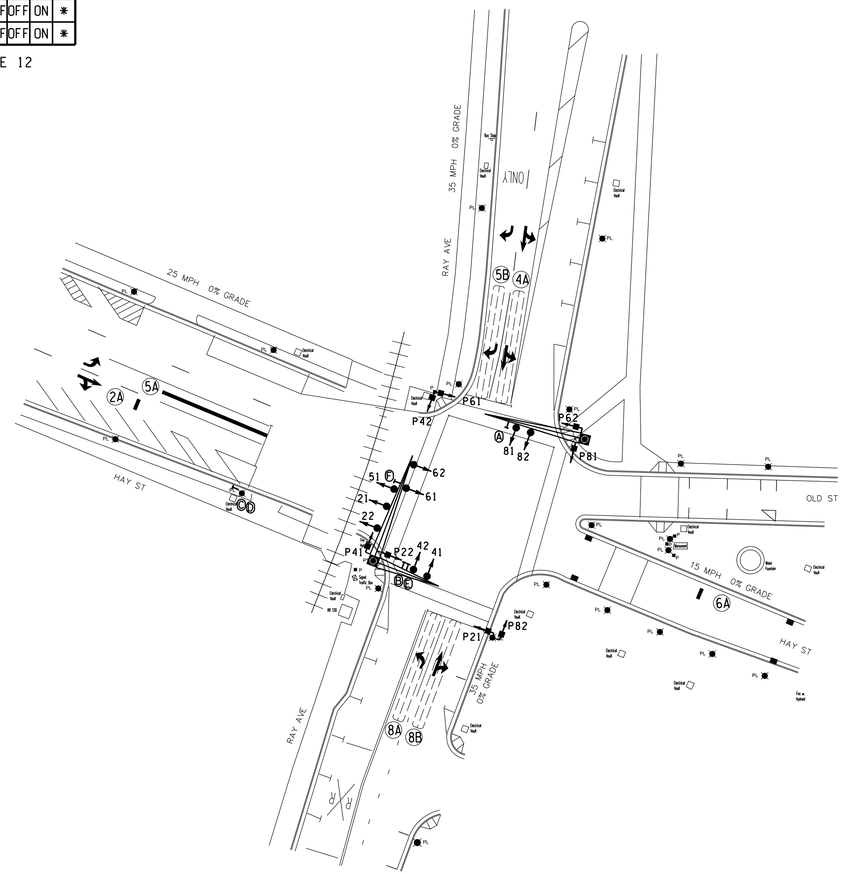
FUNCTION	PRE 1
Exit Phase(s)	2,6
Preempt Override	ON
Delay Time	0
Ped Clear Through Yellow	Y
Terminate Phases	N
Track Clear Reservice	Y
Entrance Walk	255✳
Entrance Ped Clear	255✳
Entrance Min Green	1
Entrance Yellow Change	25.5✳
Entrance Red Clear	25.5✳
Track Clear Min Green	10
Track Clear Yellow Change	25.5✳
Track Clear Red Clear	25.5✳
Min Dwell Time	10
Exit Yellow Change	25.5✳
Exit Red Clear	25.5✳

* Allows normal phase times to be used.

ASC/3 TIMING CHART

FEATURE	PHASE 2	4	5	6	8
Min Green *	10	7	7	10	7
Walk *	7	7	-	7	7
Ped Clear	14	21	-	16	18
Veh. Extension *	3.0	1.0	1.0	3.0	1.0
Max 1 *	50	30	20	50	30
Yellow	3.8	3.8	3.2	3.0	3.8
Red Clear	3.0	2.1	3.5	3.4	2.1
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	-	X	-	-	X
Simultaneous Gap	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.



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	
	Video Detection Area	
Ⓐ	"NO LEFT TURN - TRAIN" Fiber Optic Blankout Sign	Ⓐ
Ⓑ	"NO RIGHT TURN - TRAIN" Fiber Optic Blankout Sign	Ⓑ
Ⓒ	"DO NOT STOP ON TRACKS" Sign (R8-8)	Ⓒ
Ⓓ	"STOP HERE ON RED" Sign (R10-X)	Ⓓ
Ⓔ	Right Arrow "ONLY" Sign (R3-5R)	Ⓔ
Ⓕ	Left Arrow "ONLY" Sign (R3-5L)	Ⓕ

Signal Upgrade

Fayetteville North Carolina

HAY STREET AT RAY AVENUE AND OLD STREET

DIV 06 | CUMBERLAND COUNTY | FAYETTEVILLE

PLAN DATE:	NOVEMBER 2016	REVIEWED BY:	RWT
PREPARED BY:	BLR	REVIEWED BY:	

SCALE 0 40

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 032711 ENGINEER RUSSELL W. THOMPSON

DocuSigned by: Russell W Thompson 11/21/2016
SIGNATURE DATE

SIG. INVENTORY NO. C011

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www.hatchmott.com
HATCH MOTT MACDONALD I & E, LLC
LICENSE NO. P-0669

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