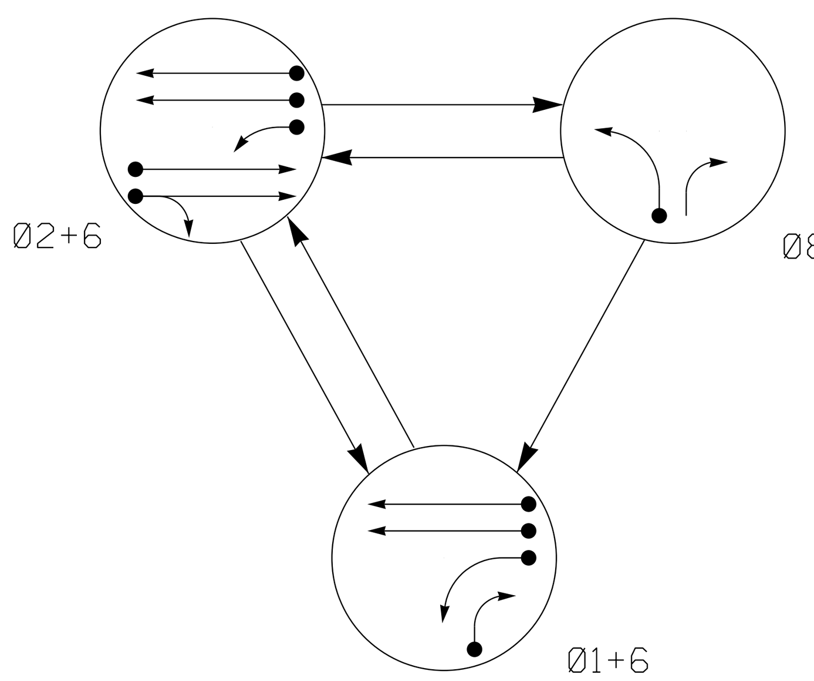
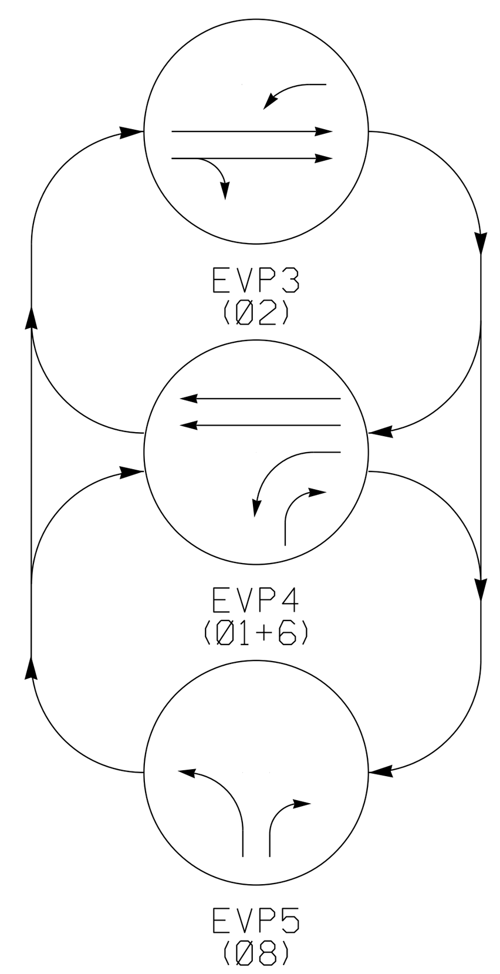
PROJECT REFERENCE NO.	SHEET NO.
U-5942	Sig. 24.0

PHASING DIAGRAM



EV PREEMPT PHASES



PHASING DIAGRAM DETECTION LEGEND

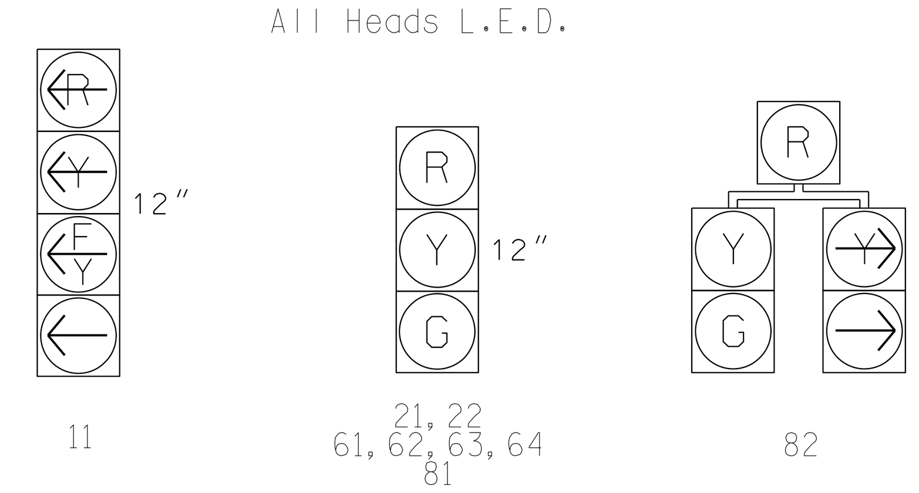
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø1+6	Ø2+6	Ø8	EVP3	EVP4	EVP5	FLASH
11	←	←FY	←R	←FY	←	←R	←Y
21, 22	R	G	R	G	R	R	Y
61, 62, 63, 64	G	G	R	R	G	R	Y
81	R	R	G	R	R	G	R
82	R/→	R	G	R	R/→	G	R

SIGNAL FACE I.D.

All Heads L.E.D.



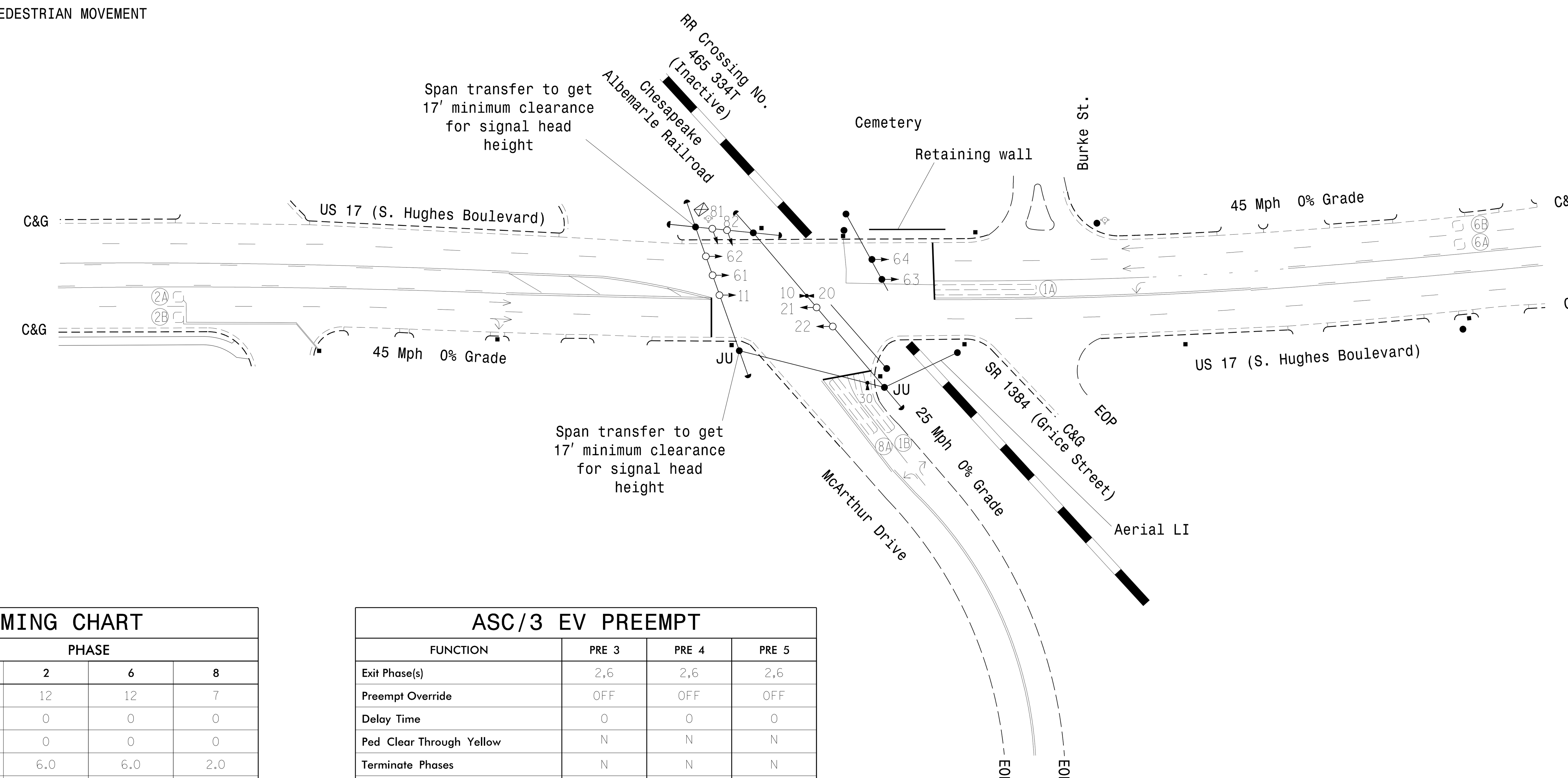
ASC/3 DETECTOR INSTALLATION CHART

DETECTOR: LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING: PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	SYSTEM LOOP	NEW CARD
1A	6X60	0	2-4-2	-	1	Yes	-	15	-	S	-	X
					6	Yes	-	3	-	G	-	X
1B	6X40	0	2-4-2	-	1	Yes	-	15	-	S	-	X
2A	6X6	300	EXIST	-	2	Yes	-	-	X	N	-	X
2B	6X6	300	EXIST	-	2	Yes	-	-	X	N	-	X
6A	6X6	300	EXIST	-	6	Yes	-	-	X	N	-	X
6B	6X6	300	EXIST	-	6	Yes	-	-	X	N	-	X
8A	6X40	0	2-4-2	-	8	Yes	-	3	-	S	-	X

3 Phase
Fully Actuated
W/ EV Preemption
(Elizabeth City Signal System)

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 may be lagged.
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. Pavement markings are existing.
7. This intersection features an optical preemption system. Shown locations of optical detectors are conceptual only.
8. Optical detector 10 calls EVP3:
   Optical detector 20 calls EVP4:
   Optical detector 30 calls EVP5.
9. Relocate existing Optical detection equipment from existing cabinet to new cabinet.
10. 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	
N/A	Fire Hydrant	
N/A	Railroad Cantilever	
N/A	Railroad Tracks	
	Optical Detector	

ASC/3 TIMING CHART

FEATURE	PHASE 1	2	6	8
Min Green *	7	12	12	7
Walk *	0	0	0	0
Ped Clear	0	0	0	0
Veh. Extension *	1.0	6.0	6.0	2.0
Max 1 *	25	90	90	25
Yellow	3.0	4.5	4.5	3.2
Red Clear	3.3	2.2	2.2	2.5
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	-	-	-	-
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.

ASC/3 EV PREEMPT

FUNCTION	PRE 3	PRE 4	PRE 5
Exit Phase(s)	2,6	2,6	2,6
Preempt Override	OFF	OFF	OFF
Delay Time	0	0	0
Ped Clear Through Yellow	N	N	N
Terminate Phases	N	N	N
Entrance Walk	255*	255*	255*
Entrance Ped Clear	255*	255*	255*
Entrance Min Green	1	1	1
Entrance Yellow Change	25.5*	25.5*	25.5*
Entrance Red Clear	25.5*	25.5*	25.5*
Minimum Dwell Time	12	12	7
Preempt Input Extension Time	2	2	2
Preempt Max Time	120	120	120
Exit Yellow Change	25.5*	25.5*	25.5*
Exit Red Clear	25.5*	25.5*	25.5*

* Allows normal phase times to be used.

Plans Prepared By:

DRMP

DRMP, Inc.
8000 Regency Parkway, Suite 175
Cary, NC 27518
NC License No. C-2213 (919) 650-1038

Signal Upgrade

Prepared for the Offices of:

Transportation Mobility and Safety Division
State of North Carolina Department of Transportation
Signal Design Section

750 N.Greenfield Pkwy,Garner,NC 27529

US 17 (S. Hughes Blvd.) at McArthur Drive

Division 1 Pasquotank County Elizabeth City

PLAN DATE: February 2018	REVIEWED BY: AJ Davis
PREPARED BY: JA Le	REVIEWED BY: LM Moon

SCALE 0 50 1"=50'

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 022516 ENGINEER LISA M. MOON

DocuSigned by: Lisa M. Moon 8/21/2018
58CE58BD83D0421...
DATE

SIG. INVENTORY NO. 01-0222