PROJECT REFERENCE NO.	SHEET NO.
U-5942	Sig. 7.0

PHASING DIAGRAM

Ø2+6   Ø4

BRIDGE PREEMPT (PRE 3)

BRIDGE Clear (Ø1+6)   BRIDGE Dwell (Ø4)

EV PREEMPT PHASES

EVP 4 (Ø1+6)

EVP 6 (Ø4)

PHASING DIAGRAM DETECTION LEGEND

- ← DETECTED MOVEMENT
- ← UNDETECTED MOVEMENT (OVERLAP)
- ← — UNSIGNALIZED MOVEMENT
- ⇐ - - PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE						
	Ø2+6	Ø4	3 RED Ø2+6	3 RED Ø4	EVP 4	EVP 6	FLASH
11	F-Y	R	R	R	R	R	Y
21	F-Y	R	F-Y	R	F-Y	R	Y
22, 23	G	R	R	R	R	R	R
41, 42	R	G	R	G	R	G	R
61, 62	G	R	G	R	G	R	Y
P41, P42	DW	W	DW	DW	DW	DW	DRK
P43, P44	DW	W	DW	DW	DW	DW	DRK

SIGNAL FACE I.D.

All Heads L.E.D.

11	21	22, 23 41, 42 61, 62	P41, P42 P43, P44

ASC/3 DETECTOR INSTALLATION CHART

DETECTOR				PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	SYSTEM LOOP	NEW CARD
2A	6x6	70	✳	-	2	Yes	-	-	-	S	-	X
2B	6x6	70	✳	-	2	Yes	-	-	-	S	-	X
2C	6x40	0	✳	-	2	Yes	-	-	-	S	-	X
4A	6x40	0	✳	-	4	Yes	-	-	-	S	-	X
6A	6x6	70	✳	-	6	Yes	-	-	-	S	-	X
6B	6x6	70	✳	-	6	Yes	-	-	-	S	-	X
6C	6x40	0	✳	-	6	Yes	-	-	-	S	-	X
S03	6x6	+90	✳	-	-	-	-	-	-	N	X	X
S04	6x6	+90	✳	-	-	-	-	-	-	N	X	X

✳ Wireless Detection Zone

2 Phase
Fully Actuated
W/ EV and Bridge 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. Set all detector units to presence mode.
4. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
5. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
6. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
7. Pavement markings are existing.
8. This intersection features an optical preemption system. Shown locations of optical detectors are conceptual only.
9. Relocate existing Optical detection equipment from existing cabinet to new cabinet.
10. Optical detector 10 calls EVP 4; Optical detector 20 calls EVP 6.
11. Relocate existing wireless detection equipment from existing cabinet to new cabinet.
12. Relocate existing FO transceivers and contact closures with all associated equipment for bridge preemption at this location and 01-0008 and 01-0010 from existing cabinet to new cabinet.
13. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

ASC/3 BRIDGE PREEMPT

FUNCTION	PRE 3
Exit Phase(s)	2,6
Preempt Override	ON
Delay Time	0
Ped Clear Through Yellow	Y
Terminate Phases	N
Bridge Clear Reserve	Y
Entrance Walk	255✳
Entrance Ped Clear	255✳
Entrance Min Green	1
Entrance Yellow Change	25.5✳
Entrance Red Clear	25.5✳
Bridge Clear Min Green	25
Bridge Clear Yellow Change	3.8
Bridge Clear Red Clear	1.7
Min Dwell Time	10
Exit Yellow Change	25.5✳
Exit Red Clear	25.5✳

* Time defaults to time used for phase during normal operations.

ASC/3 TIMING CHART

FEATURE	PHASE			
	1	2	4	6
Min Green *	7	10	7	10
Delay Green	-	0	7	0
Walk *	-	0	7	0
Ped Clear *	-	0	15	0
Veh. Extension *	-	3.0	2.0	3.0
Max 1 *	-	30	15	30
Yellow	3.0	3.8	3.2	3.8
Red Clear	2.3	1.7	2.4	1.7
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	-	-	-	-
Simultaneous Gap	-	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 4	PRE 6
Exit Phase(s)	2,6	2,6
Preempt Override	OFF	OFF
Delay Time	0	0
Ped Clear Through Yellow	Y	Y
Terminate Phases	N	N
Entrance Walk	255✳	255✳
Entrance Ped Clear	255✳	255✳
Entrance Min Green	1	1
Entrance Yellow Change	25.5✳	25.5✳
Entrance Red Clear	25.5✳	25.5✳
Minimum Dwell Time	10	7
Preempt Input Extension Time	2	2
Preempt Max Time	120	120
Exit Yellow Change	25.5✳	25.5✳
Exit Red Clear	25.5✳	25.5✳

* Allows normal phase times to be used.

LEGEND

PROPOSED		EXISTING
○►	Traffic Signal Head	●
◐►	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head	
✳	Push Button & Sign	✳
⊕	Type I Pushbutton Post	
○	Type II Signal Pedestal	
	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	
	Metal Pole with Mastarm	
	Optical Detector	
N/A	Truncated Dome	

Signal Upgrade

Plans Prepared By:

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

US 158 (Elizabeth Street)
at
SR 1329 (Poindexter Street)

Division 1   Pasquotank County   Elizabeth City

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

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA
PROFESSIONAL
SEAL
022516
ENGINEER
LISA M. MOON

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

DocuSigned by:
Lisa M. Moon   9/20/2018

SIG. INVENTORY NO.   01-0009

SCALE
0   30'
1"=30'

US 158 (Elizabeth Street)
SR 1329, Poindexter Street
Poindexter Street
Sidewalk C&G
C&G Sidewalk
METAL POLE #5
25 Mph 0% Grade
35 Mph 0% Grade