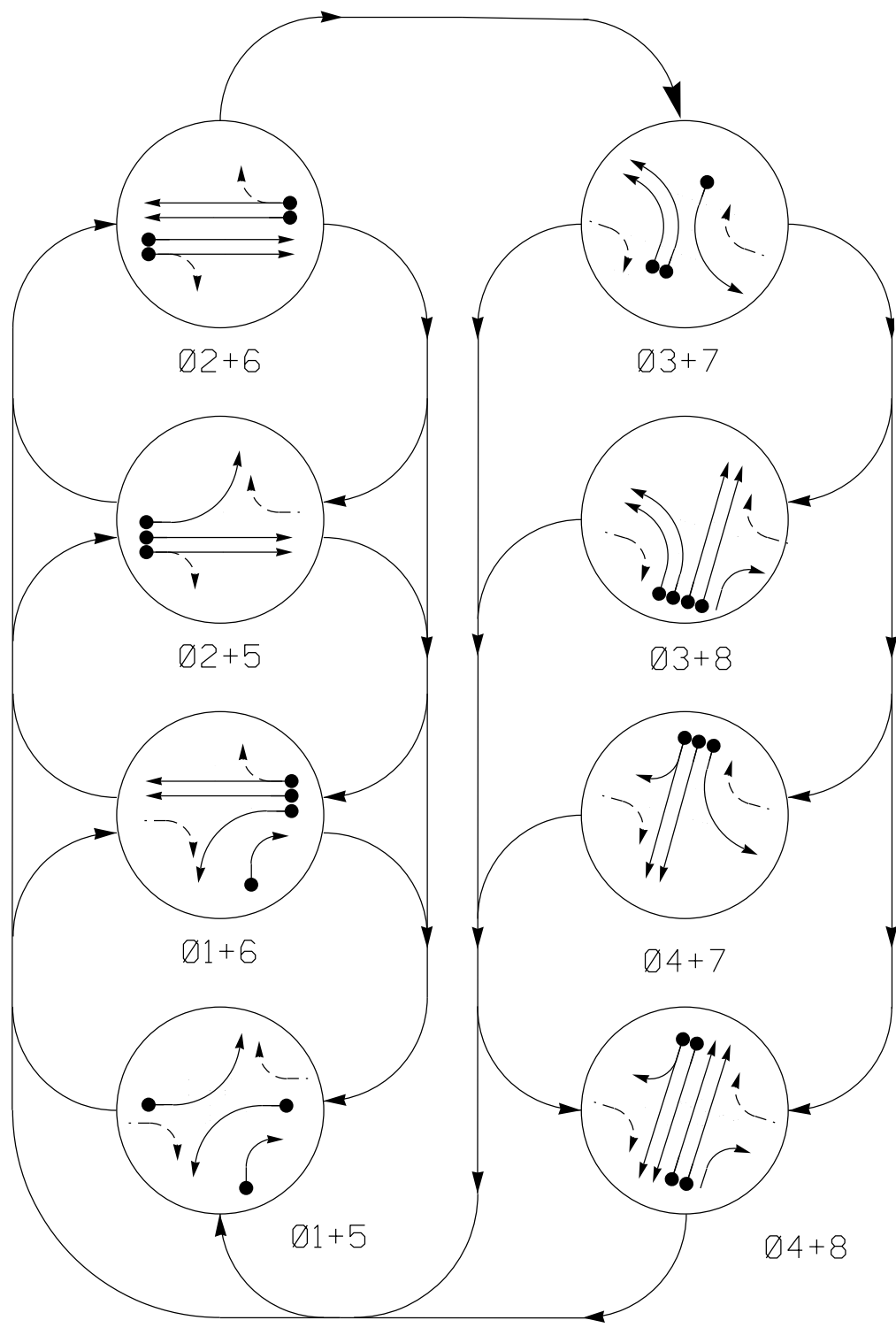


PHASING DIAGRAM



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

EV PREEMPT PHASES

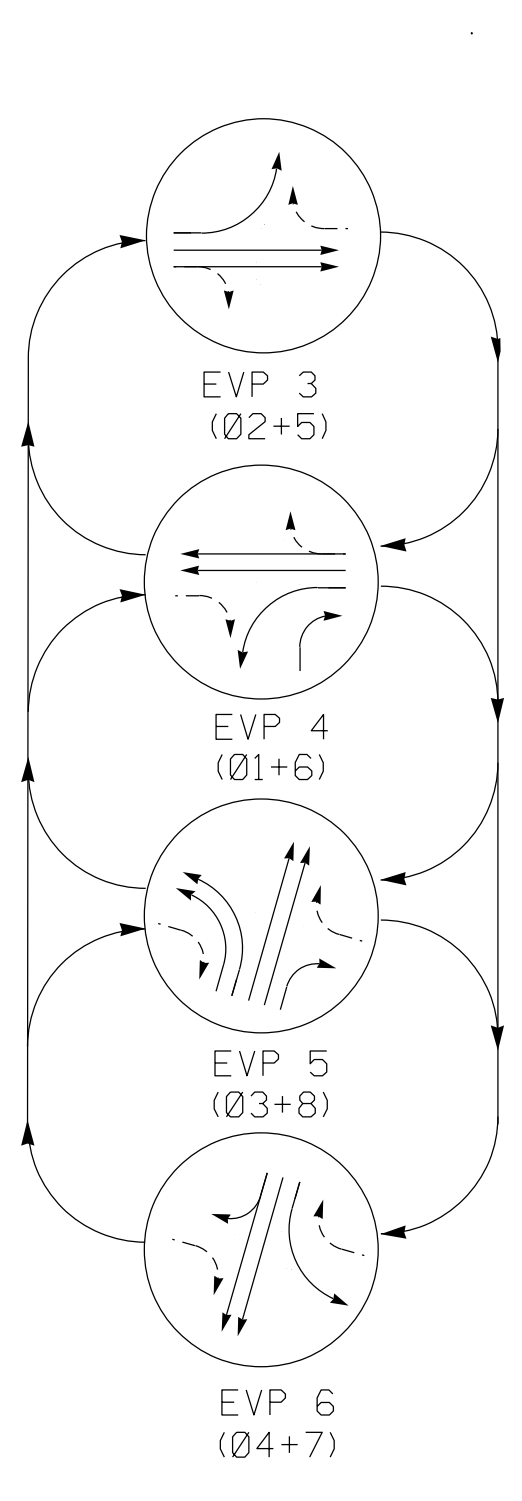
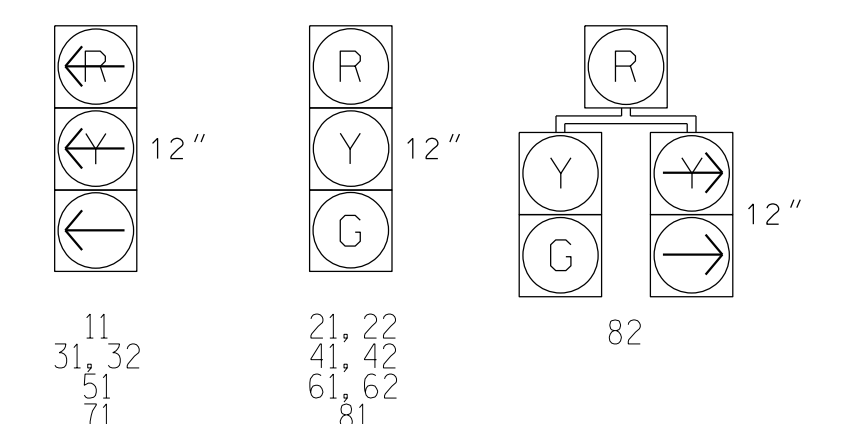


TABLE OF OPERATION

SIGNAL FACE	PHASE											
	Ø 1 + 5	Ø 1 + 6	Ø 2 + 5	Ø 2 + 6	Ø 3 + 7	Ø 3 + 8	Ø 4 + 7	Ø 4 + 8	EVP 3	EVP 4	EVP 5	EVP 6
11	←	←	←	←	←	←	←	←	←	←	←	←
21,22	R	R	G	G	R	R	R	R	G	R	R	R
31,32	←	←	←	←	←	←	←	←	←	←	←	←
41,42	R	R	R	R	R	G	G	R	R	R	G	R
51	←	←	←	←	←	←	←	←	←	←	←	←
61,62	R	G	R	G	R	R	R	R	G	R	R	R
71	←	←	←	←	←	←	←	←	←	←	←	←
81	R	R	R	R	R	G	G	R	R	G	R	R
82	R	R	R	R	R	G	R	G	R	G	R	R

SIGNAL FACE I.D.

All Heads L.E.D.



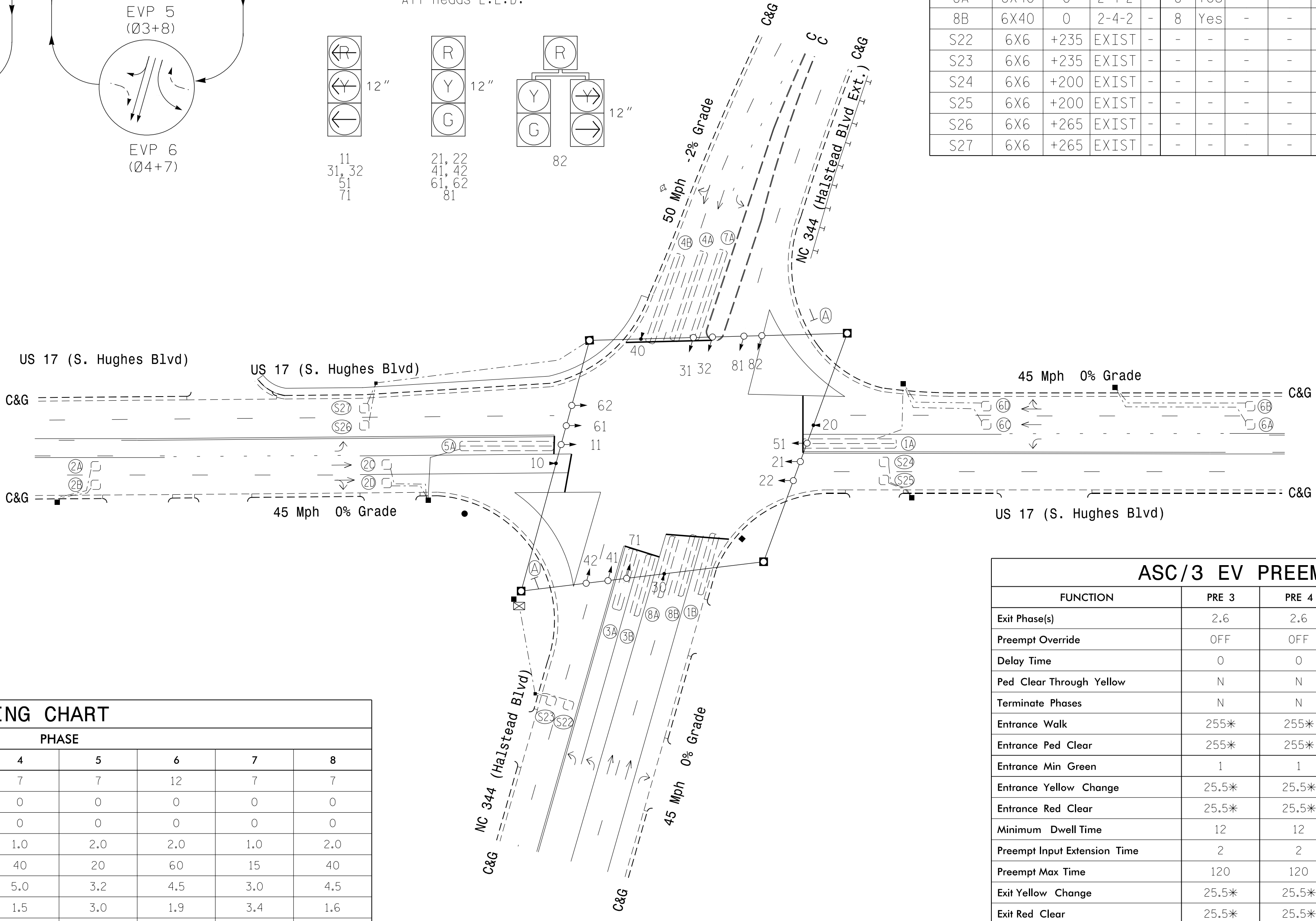
ASC/3 DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING							
					PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	LOOP SYSTEM	NEW CARD
1A	6X60	0	2-4-2	-	1	Yes	-	3	-	S	-	X
1B	6X40	0	2-4-2	-	1	Yes	-	15	-	S	-	X
2A	6X6	300	EXIST	-	2	Yes	1.6	-	-	S	-	X
2B	6X6	300	EXIST	-	2	Yes	1.6	-	-	S	-	X
2C, 2D	6X6	90	EXIST	-	2	Yes	-	-	-	S	-	X
3A	6X40	0	2-4-2	-	3	Yes	-	3	-	S	-	X
3B	6X40	0	2-4-2	-	3	Yes	-	-	-	S	-	X
4A	6X60	0	2-4-2	-	4	Yes	-	-	-	S	-	X
4B	6X60	0	2-4-2	-	4	Yes	-	10	-	S	-	X
5A	6X60	0	2-4-2	-	5	Yes	-	3	-	S	-	X
6A	6X6	300	EXIST	-	6	Yes	1.6	-	-	S	-	X
6B	6X6	300	EXIST	-	6	Yes	1.6	-	-	S	-	X
6C, 6D	6X6	96	EXIST	-	6	Yes	-	-	-	S	-	X
7A	6X60	0	2-4-2	-	7	Yes	-	-	-	S	-	X
8A	6X40	0	2-4-2	-	8	Yes	-	-	-	S	-	X
8B	6X40	0	2-4-2	-	8	Yes	-	-	-	S	-	X
S22	6X6	+235	EXIST	-	-	-	-	-	-	N	X	X
S23	6X6	+235	EXIST	-	-	-	-	-	-	N	X	X
S24	6X6	+200	EXIST	-	-	-	-	-	-	N	X	X
S25	6X6	+200	EXIST	-	-	-	-	-	-	N	X	X
S26	6X6	+265	EXIST	-	-	-	-	-	-	N	X	X
S27	6X6	+265	EXIST	-	-	-	-	-	-	N	X	X

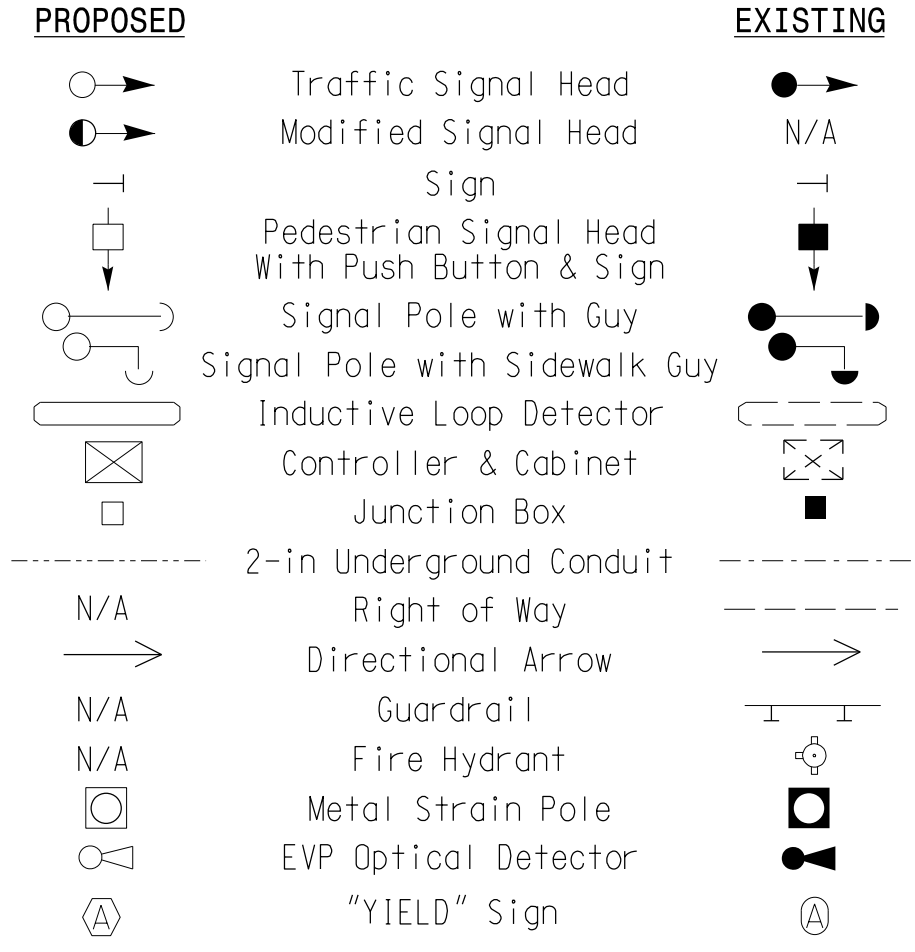
8 Phase Fully Actuated w/ EV Preemption (Elizabeth City Signal System)

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- Phase 3 and/or phase 7 may be lagged.
- Set all detector units to presence mode.
- 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.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Pavement markings are existing.
- Relocate emergency vehicle preemption equipment from existing cabinet to new cabinet.
- This intersection features an optical preemption system. Shown locations of optical detectors are conceptual only.
- Optical detector 10 calls EVP 3; Optical detector 20 calls EVP 4; Optical detector 30 calls EVP 5; Optical detector 40 calls EVP 6;
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



LEGEND



ASC/3 EV PREEMPT

FUNCTION	PRE 3	PRE 4	PRE 5	PRE 6
Exit Phase(s)	2.6	2.6	2.6	2.6
Preempt Override	OFF	OFF	OFF	OFF
Delay Time	0	0	0	0
Ped Clear Through Yellow	N	N	N	N
Terminate Phases	N	N	N	N
Entrance Walk	255*	255*	255*	255*
Entrance Ped Clear	255*	255*	255*	255*
Entrance Min Green	1	1	1	1
Entrance Yellow Change	25.5*	25.5*	25.5*	25.5*
Entrance Red Clear	25.5*	25.5*	25.5*	25.5*
Minimum Dwell Time	12	12	7	7
Preempt Input Extension Time	2	2	2	2
Preempt Max Time	120	120	120	120
Exit Yellow Change	25.5*	25.5*	25.5*	25.5*
Exit Red Clear	25.5*	25.5*	25.5*	25.5*

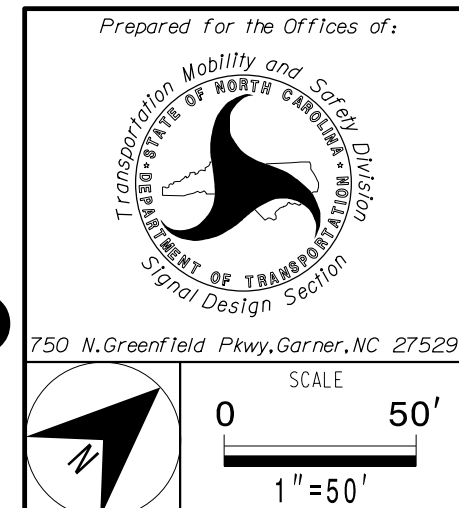
* Allows normal phase times to be used.

ASC/3 TIMING CHART

FEATURE	PHASE							
	1	2	3	4	5	6	7	8
Min Green *	7	12	7	7	7	12	7	7
Walk *	0	0	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0	0	0
Veh. Extension *	2.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0
Max 1 *	30	60	25	40	20	60	15	40
Yellow	3.2	4.5	3.0	5.0	3.2	4.5	3.0	4.5
Red Clear	3.0	1.7	3.7	1.5	3.0	1.9	3.4	1.6
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	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.

Signal Upgrade



US 17 (S. Hughes Blvd.) at NC 344 (Halstead Blvd./ Halstead Blvd. Ext.)

Division 1 Pasquotank County Elizabeth City

PLAN DATE: March 2018 REVIEWED BY: AJ Davis

PREPARED BY: JA Le REVIEWED BY: LM Moon

REVISIONS: INIT. DATE

SCALE: 1"=50'

DocuSigned by: Lisa M. Moon 8/21/2018

SIG. INVENTORY NO. 01-0015

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

21-AUG-2018 16:55 R:\05942\51001\0005\0005\Signal\001-0015.dgn Incon. AT CAR-LMCDN1-W7