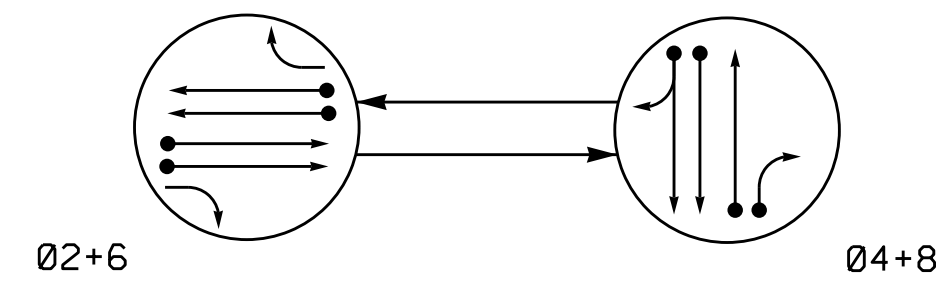
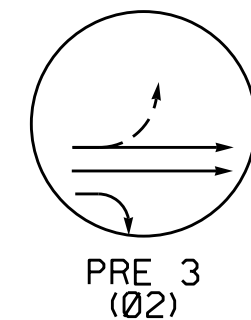


PHASING DIAGRAM



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

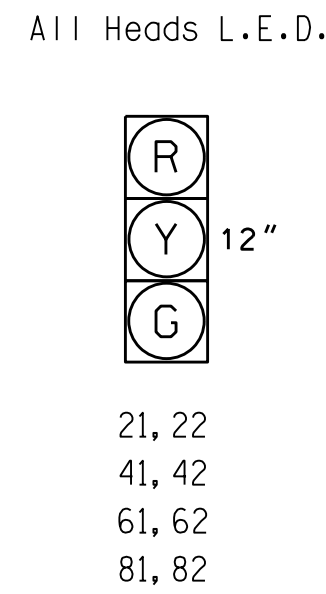
EV PREEMPT PHASES  
 (Medium Priority)



**TABLE OF OPERATION**

SIGNAL FACE	PHASE			
	02+6	04+8	PRE 3	FLIGHT
21,22	G	R	G	Y
41,42	R	G	R	R
61,62	G	R	R	Y
81,82	R	G	R	R

SIGNAL FACE I.D.



**ASC/3 DETECTOR INSTALLATION CHART**

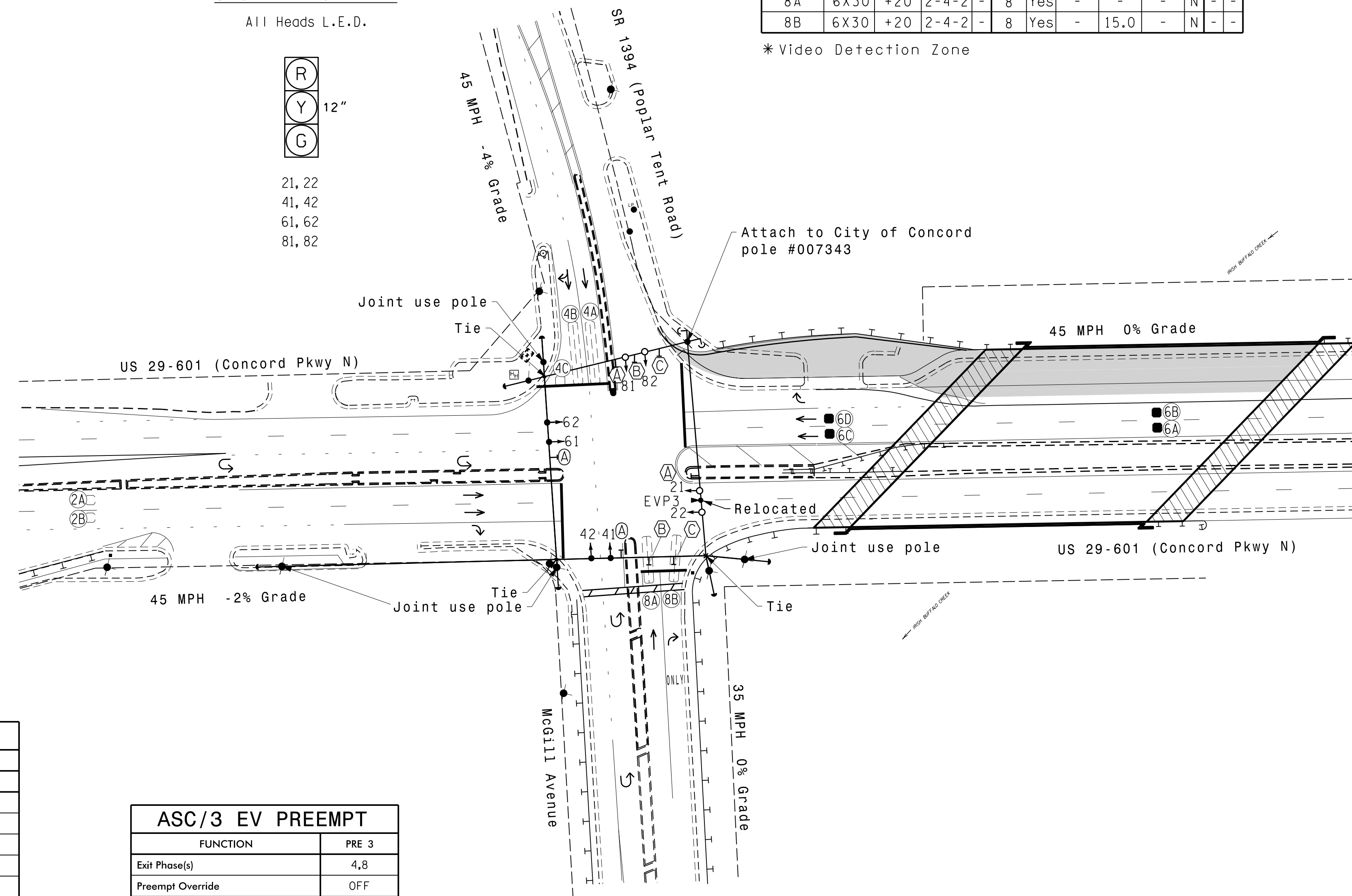
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	PROGRAMMING							
				NEW LOOP	PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	SYSTEM LOOP
2A	6X6	300	5	-	2	Yes	-	-	X	N	-
2B	6X6	300	5	-	2	Yes	-	-	X	N	-
4A	6X40	0	2-4-2	-	4	Yes	-	-	-	N	-
4B	6X40	0	2-4-2	-	4	Yes	-	10.0	-	N	-
4C	6X6	0	3	-	4	Yes	-	15.0	-	N	-
*6A	6X6	300	-	-	6	Yes	1.6	-	-	N	*
*6B	6X6	300	-	-	6	Yes	1.6	-	-	N	*
*6C	6X6	90	-	-	6	Yes	-	-	-	N	*
*6D	6X6	90	-	-	6	Yes	-	-	-	N	*
8A	6X30	+20	2-4-2	-	8	Yes	-	-	-	N	-
8B	6X30	+20	2-4-2	-	8	Yes	-	15.0	-	N	-

\* Video Detection Zone

2 Phase  
 Fully Actuated w/ EV Preempt  
 City of Concord Central 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.
- Set all detector units to presence mode.
- This intersection features an optical preemption system. Relocate the existing EV Preemptor from the existing spanwire to the new spanwire.
- This intersection uses video detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



**ASC/3 TIMING CHART**

FEATURE	PHASE			
	2	4	6	8
Min Green *	12	7	12	7
Walk *	0	0	0	0
Ped Clear	0	0	0	0
Veh. Extension *	6.0	2.0	2.0	2.0
Max 1 *	90	60	90	60
Yellow	4.7	4.9	4.7	3.8
Red Clear	1.5	1.6	1.5	2.4
Red Revert	2.0	2.0	2.0	2.0
Actuations B4 Add *	-	-	-	-
Seconds / Actuation *	1.5	-	-	-
Max Initial *	34	-	-	-
Time Before Reduction *	15	-	-	-
Time To Reduce *	30	-	-	-
Minimum Gap	3.0	-	-	-
Locking Detector	X	-	X	-
Recall Position	VEH. RECALL	-	VEH. RECALL	-
Dual Entry	-	X	-	X
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
Exit Phase(s)	4,8
Preempt Override	OFF
Delay Time	0
Ped Clear Through Yellow	N
Terminate Phases	N
Entrance Walk	255*
Entrance Ped Clear	255*
Entrance Min Green	1
Entrance Yellow Change	25.5*
Entrance Red Clear	25.5*
Minimum Dwell Time	12
Preempt Input Extension Time **	2
Preempt Max Time	120
Exit Yellow Change	25.5*
Exit Red Clear	25.5*

\* Allows normal phase times to be used.  
 \*\* Program Timing on Optical Detection Unit

**LEGEND**

PROPOSED	EXISTING
	N/A
N/A	
	N/A
	N/A
(A)	(A) No Left or U-Turn Sign (R3-18)
(B)	(B) Through Arrow "ONLY" Sign (R3-5A)
(C)	(C) Right Arrow "ONLY" Sign (R3-5R)

Signal Upgrade - Temporary 1

	US 29-601 (Concord Parkway North) at SR 1394 (Poplar Tent Rd)/ McGill Avenue		SEAL 
	Division 10 Cabarrus County Concord		
Prepared in the Offices of: 	PLAN DATE: January 2022 PREPARED BY: EM Minshew	REVIEWED BY: T.J. Williams REVIEWED BY:	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED DATE: 01/14/2022 DATE:
750 N. Greenfield Pkwy, Garner, NC 27529 SCALE: 1" = 50' 	REVISIONS:	INIT. DATE:	S.I.G. INVENTORY NO. 10-044611