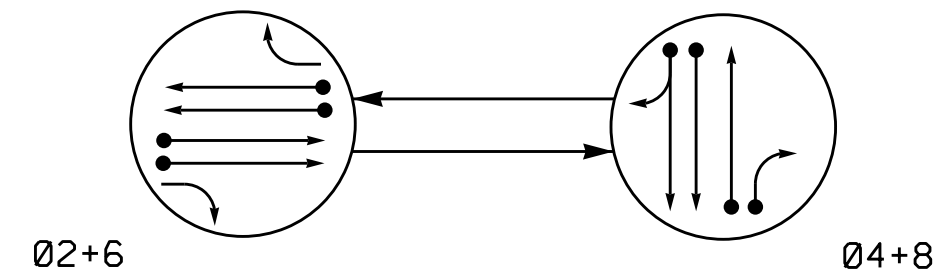


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

EV PREEMPT PHASES (Medium Priority)

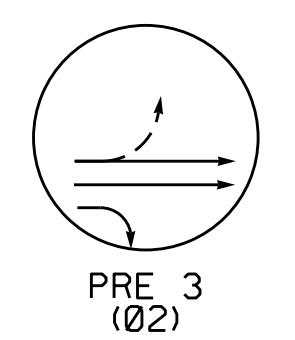
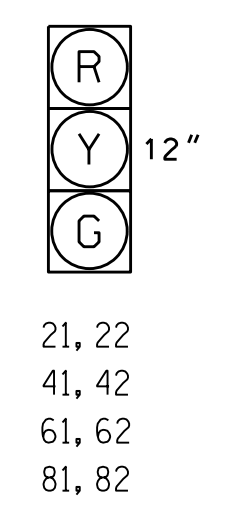


TABLE OF OPERATION

SIGNAL FACE	PHASE			
	02+6	04+8	PRE 3	FLASH
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.

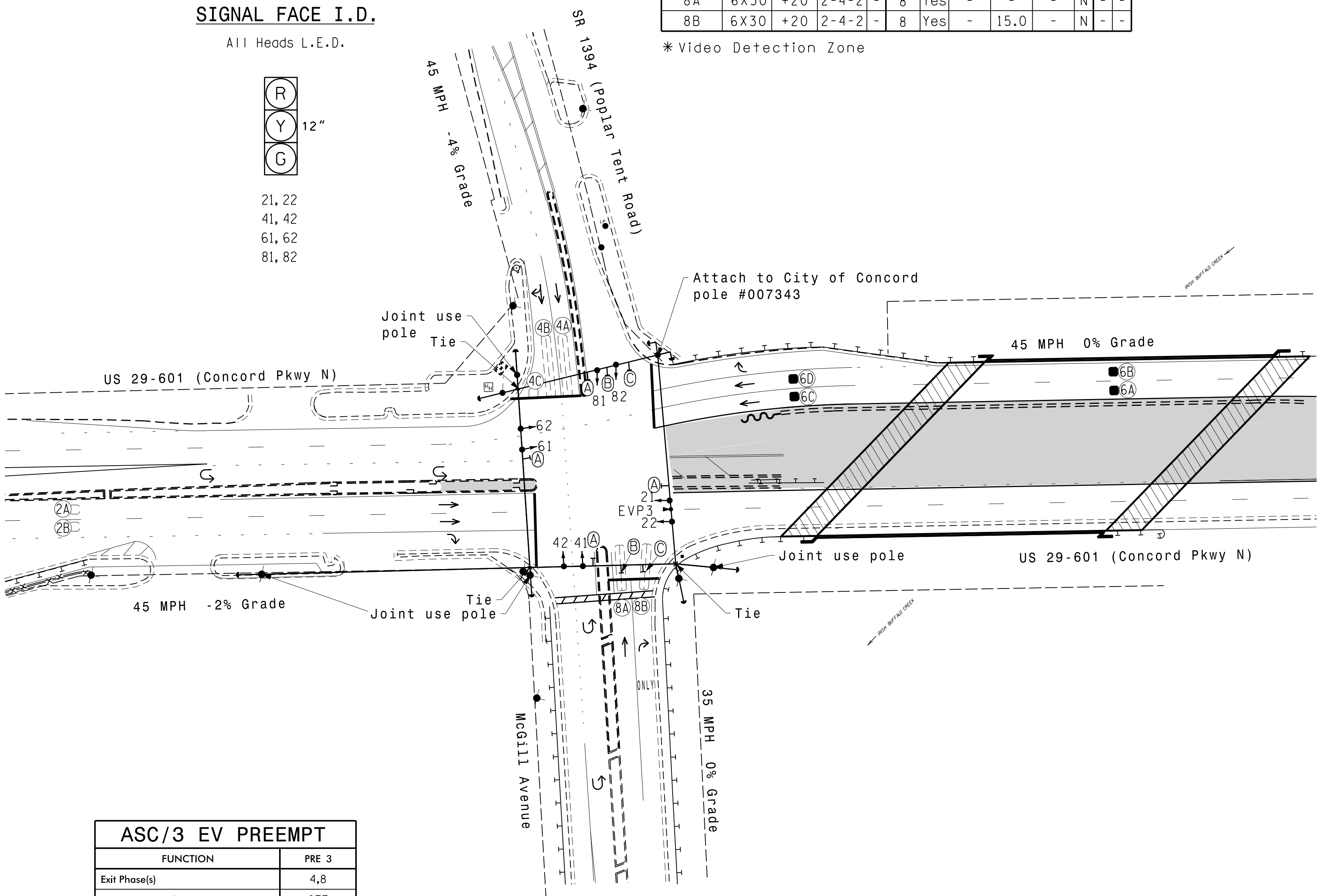
All Heads L.E.D.



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	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

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. Reposition heads 61,62 & sign "A".
4. Set all detector units to presence mode.
5. This intersection features an optical preemption system.
6. This intersection uses video detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
7. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

LEGEND

- | PROPOSED | EXISTING |
|----------|----------|
|          | N/A      |
|          | N/A      |
|          | N/A      |
|          | N/A      |
|          | N/A      |
|          | N/A      |
|          | N/A      |
|          | N/A      |
|          | N/A      |
|          | N/A      |
|          | N/A      |
|          | N/A      |
|          | N/A      |
|          | N/A      |
|          | N/A      |
|          | N/A      |

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 I *	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

Signal Upgrade - Temporary 2

750 N. Greenfield Pkwy, Garner, NC 27529

Prepared in the Offices of:  
  
 TRANSPORTATION MOBILITY AND SAFETY, INC.  
 STATE OF NORTH CAROLINA  
 PROFESSIONAL ENGINEER  
 Signal Design Section

SR 1394 (Poplar Tent Rd)/  
McGill Avenue

Division 10 Cabarrus County Concord

PLAN DATE: January 2022 REVIEWED BY: T.J. Williams

PREPARED BY: EM Minshew REVIEWED BY:

REVISIONS

INIT. DATE

Seal of J. J. Williams, Professional Engineer, No. 024393, State of North Carolina. Date: 01/14/2022

SIG. INVENTORY NO. 10-0446T2

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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 emminshew