

PHASING DIAGRAM DETECTION LEGEND

DETECTED MOVEMENT

UNDETECTED MOVEMENT (OVERLAP)

UNSIGNALIZED MOVEMENT ← − − > PEDESTRIAN MOVEMENT

TABLE OF OPERATION PHASE FACE 21,22 41,42 61,62 81,82 P81**,**P82

SIGNAL FACE I.D.
All Heads L.E.D.

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
2 A	6 X 6	300	5	-	2	Yes	-	-	Χ	N	-	-
2 B	6 X 6	300	5	-	2	Yes	-	-	Χ	N	-	-
4 A	6 X 4 O	0	2-4-2	_	4	Yes	-	=	-	N	-	-
4 B	6 X 4 O	0	2-4-2	-	4	Yes	-	10.0	-	N	-	-
4 C	6 X 6	0	3	-	4	Yes	-	15.0	-	N	-	-
 ₩ 6 A	6 X 6	300	-	-	6	Yes	-	-	-	N	-	*
 ₩6B	6 X 6	300	-	-	6	Yes	-	-	-	N	-	*
*6C	6 X 4 O	0	-	-	6	Yes	2.0	5.0	-	G	-	*
* 6D	6 X 4 O	0	-	_	6	Yes	2.0	5.0	-	G	-	*
8 A	6 X 3 O	+20	2-4-2	-	8	Yes	-	-	-	N	-	-
8 B	6X30	+20	2-4-2	_	8	Yes	-	15.0	-	N	-	_

* Video Detection Zone

21, 22 P81, P 41, 42 61, 62 81, 82	16" A% Grade	Attach to City of Concord pole #007343	Mist Buffel Contex
US 29-601 (Concord Pkwy N)	=======================================	P81	45 MPH 0% Grade ===================================
======================================	62 - 61 - A PB83 - A EVP3 - 22 - 3 B C D	6D — — — — — — — — — — — — — — — — — — —	
45 MPH -2% Grade	Joint use pole Tie Joint use pole	Joint use pole US 29-6 Tie	01 (Concord Pkwy N)

AS	ASC/3 TIMING CHART				
	PHASE				
FEATURE	2	4	6	8	
Min Green *	12	7	12	7	
Delayed Green *	0	0	0	5	
Walk *	0	0	0	7	
Ped Clear	0	0	0	30	
Veh. Extension *	6.0	2.0	6.0	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	-	15	-	
Time To Reduce *	30	-	30	-	
Minimum Gap	3.0	-	3.0	-	

* 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.

/EH. RECALL

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VEH. RECALL

ASC/3 EV PREEMPT			
FUNCTION	PRE 3		
Exit Phase(s)	4,8		
Preempt Override	OFF		
Delay Time	0		
Ped Clear Through Yellow	Y		
Terminate Phases	N		
Entrance Walk	1		
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

Traffic Signal Head Modified Signal Head **O**-> N/A Sign Pedestrian Signal Head With Push Button & Sign Type II Signal Pedestal Type I Pushbutton Post 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

PROJECT REFERENCE NO.

B-5808

2 Phase

Fully Actuated w/ EV Preempt

City of Concord Central System

NOTES

"Standard Specifications for Roads

and Structures" dated January 2018.

otherwise directed by the Engineer.

countdown the flashing "Don't Walk"

1. Refer to "Roadway Standard Drawings

night flashing operation unless

3. Set all detector units to presence

WALK" with no pedestrian calls.

optical preemption system. Shown

locations of optical detectors are

4. Omit "WALK" and flashing "DON'T

5. Program pedestrian heads to

6. This intersection features an

7. This intersection uses video

8. Maximum times shown in timing

detection. Install detectors

according to the manufacturer's

chart are for free-run operation only. Coordinated signal system

LEGEND

timing values supersede these

instructions to achieve the desired

NCDOT" dated January 2018 and

2. Do not program signal for late

mode.

time only.

detection.

values.

<u>PROPOSED</u>

conceptual only.

Curb Ramp N/A No Left or U-Turn Sign (R3-18)

Optical Detector

Video Detection Zone

Guardrail

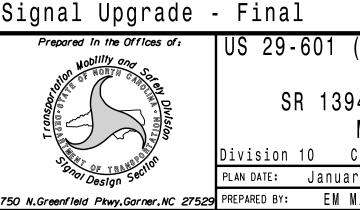
Construction Zone

Through Arrow "ONLY" Sign (R3-5A) 📵

Right Arrow "ONLY" Sign (R3-5R) ©

□ Turning Vehicles Yield to Pedestrians □
 Sign (R10-15R)

Signal Upgrade - Final



US 29-601 (Concord Parkway North) SR 1394 (Poplar Tent Rd)/

McGill Avenue Division 10 Cabarrus County Concord January 2022 REVIEWED BY: T.J. Williams EM Minshew REVIEWED BY:

INIT. DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

N/A

N/A

<u>EXISTING</u>

SEAL 024393 1. 9. Williams 01/14/2022

DATE

SIG. INVENTORY NO. 10-0446

Locking Detector

Recall Position

Dual Entry