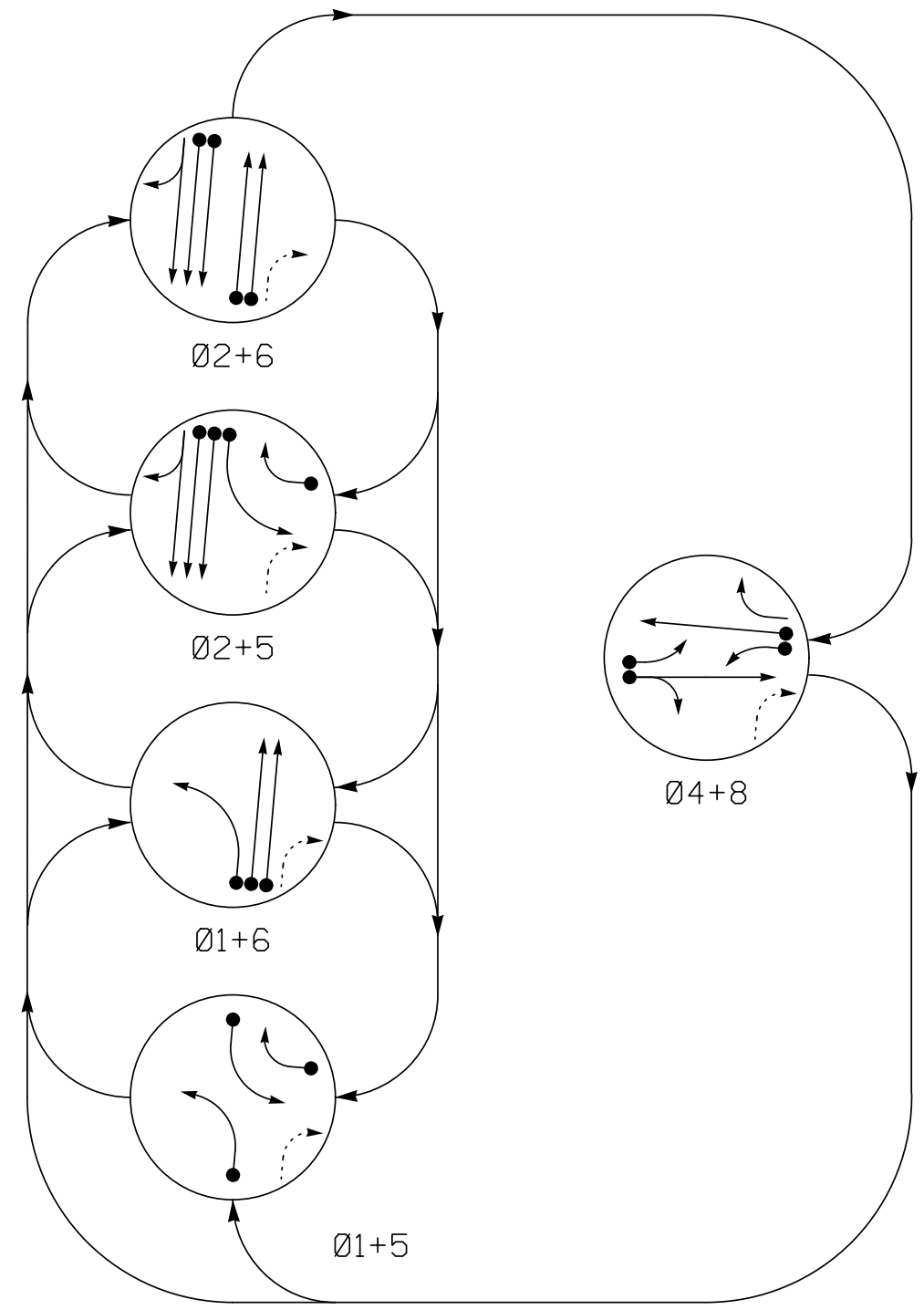
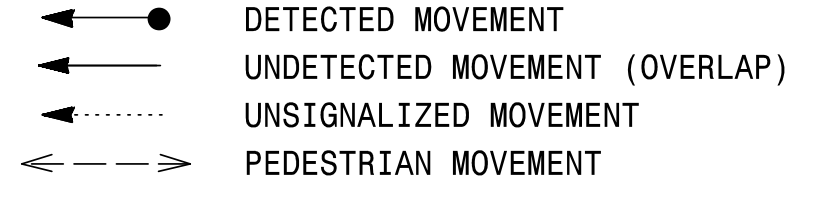


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND



SIGNAL FACE I.D.

All Heads L.E.D.

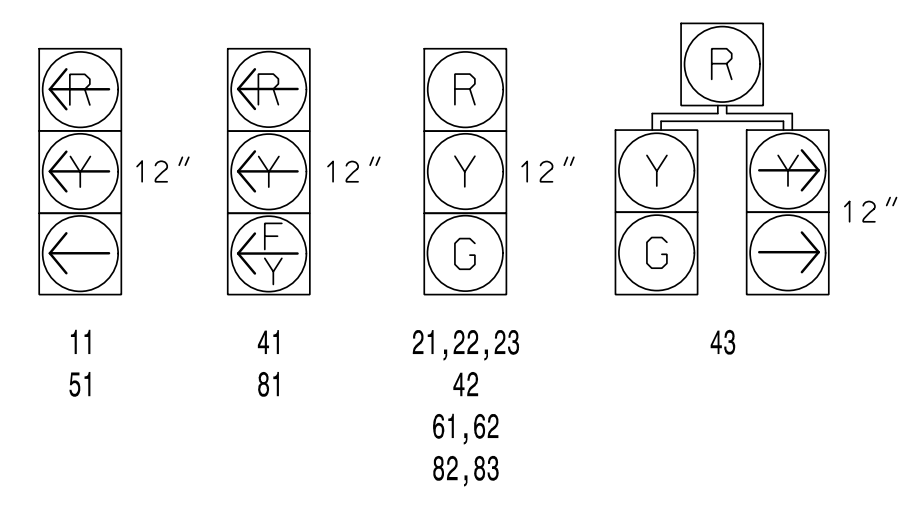


TABLE OF OPERATION

SIGNAL FACE	PHASE					FLASH
	01+5	01+6	02+5	02+6	04+8	
11	←	←	←	←	←	
21,22,23	R	R	G	G	R	Y
41	←	←	←	←	←	Y
42	R	R	R	R	G	R
43	R	R	R	R	G	R
51	←	←	←	←	←	
61,62	R	G	R	G	R	Y
81	←	←	←	←	←	Y
82,83	R	R	R	R	G	R

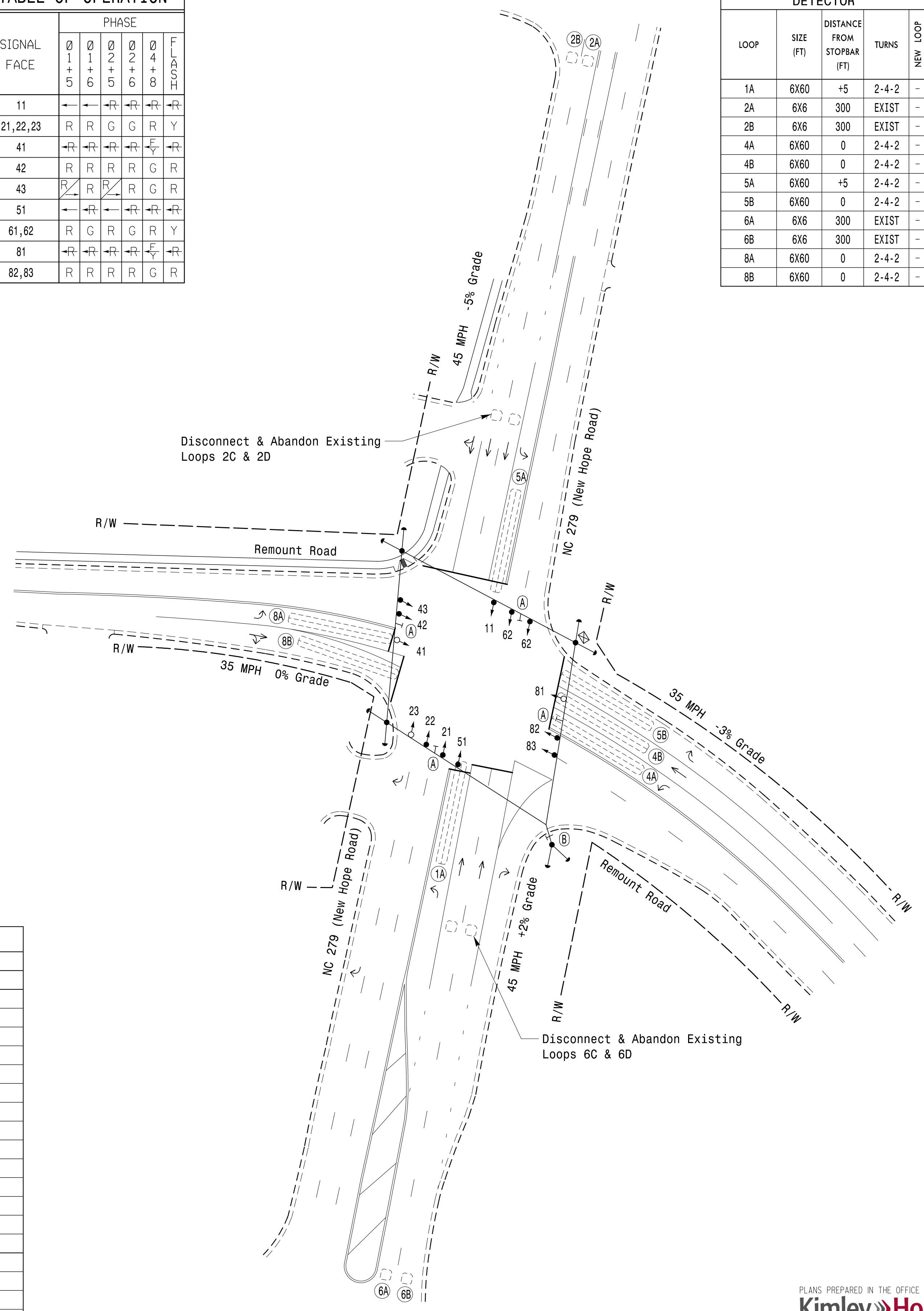
DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING							
					PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	SYSTEM LOOP	NEW CARD
1A	6X60	+5	2-4-2	-	1	Yes	-	3	-	N	-	X
2A	6X6	300	EXIST	-	2	Yes	-	-	-	X	N	-
2B	6X6	300	EXIST	-	2	Yes	-	-	-	X	N	-
4A	6X60	0	2-4-2	-	4	Yes	-	-	-	N	-	X
4B	6X60	0	2-4-2	-	4	Yes	-	-	-	N	-	X
5A	6X60	+5	2-4-2	-	5	Yes	-	3	-	N	-	X
5B	6X60	0	2-4-2	-	5	Yes	-	15	-	N	-	X
6A	6X6	300	EXIST	-	6	Yes	-	-	-	X	N	-
6B	6X6	300	EXIST	-	6	Yes	-	-	-	X	N	-
8A	6X60	0	2-4-2	-	8	Yes	-	-	-	N	-	X
8B	6X60	0	2-4-2	-	8	Yes	-	5	-	N	-	X

5 Phase Fully Actuated Gastonia Signal System

NOTES

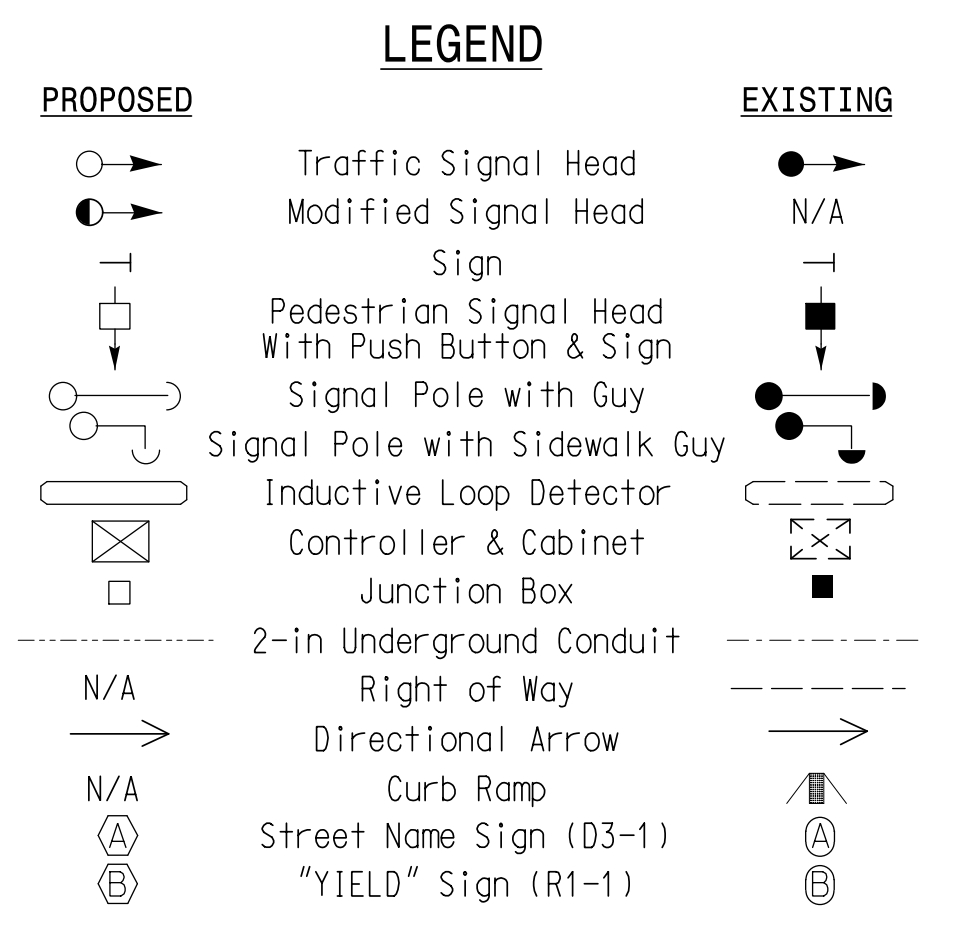
- Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- Reposition existing signal heads numbered 21, 22, 82, & 83.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
- Disconnect and abandon existing loops 2C, 2D, 6C, & 6D.
- Install new cabinet on the existing cabinet foundation.
- All new cabinets and base extenders shall be black in color. See Project Special Provisions for details.
- Reconnect lead-in cable to separate loops 2A & 2B and 6A & 6B, as shown.
- Existing signal heads 41, 42, 81, & 82 have been relabeled to 42, 43, 82, & 83, respectively.
- City system data:
Controller Asset #1535.



TIMING CHART

FEATURE	PHASE						
	1	2	4	5	6	8	
Min Green *	7	12	4	7	12	7	
Walk *	-	-	-	-	-	-	
Ped Clear	-	-	-	-	-	-	
Veh. Extension *	1.0	6.0	1.0	1.0	6.0	1.0	
Max 1 *	15	45	25	15	45	25	
Yellow	3.0	5.0	4.1	3.1	4.3	4.1	
Red Clear	3.1	1.9	2.3	2.8	1.9	2.3	
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	
Actuations B4 Add *	-	-	-	-	-	-	
Seconds / Actuation *	-	1.5	-	-	1.5	-	
Max Initial *	-	34	-	-	34	-	
Time Before Reduction *	-	15	-	-	15	-	
Time To Reduce *	-	30	-	-	30	-	
Minimum Gap	-	3.0	-	-	3.0	-	
Locking Detector	-	X	-	-	X	-	
Recall Position	-	MIN RECALL	-	-	MIN RECALL	-	
Dual Entry	-	-	X	-	-	X	
Simultaneous Gap	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

Prepared For:
Kimley-Horn

NC License #0102
421 Fayetteville Street, Suite 600
Raleigh, NC 27601
(919) 677-2000

NC 279 (New Hope Road) at Remount Road

Division 12 Gaston County Gastonia

PLAN DATE: May 2021 REVIEWED BY: SL Phillips
PREPARED BY: CF Davis REVIEWED BY: KP Baumann

REVISIONS: _____ INIT: _____ DATE: _____

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Discussed by: _____ DATE: 3/11/2022
Signature: _____
DATE: _____

SIG. INVENTORY NO. 12-1535

3/9/2022 11:17:21 AM Dantellie.Curt1 ***K:\meyer-horn.com\SE_RAL\RAL\TIP\DK-LTS\011036569_Gastonia Signal System\Signal\KWS4 - Signal Design\121535-2021.dgn