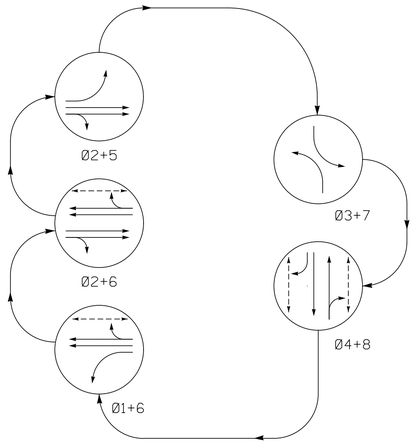
DocuSign Envelope ID: F58B15C2-40E6-45BE-9C45-A2A9EFAC85F4

PROJECT REFERENCE NO.	SHEET NO.
C-5703	Sig.90.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

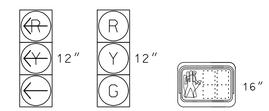
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

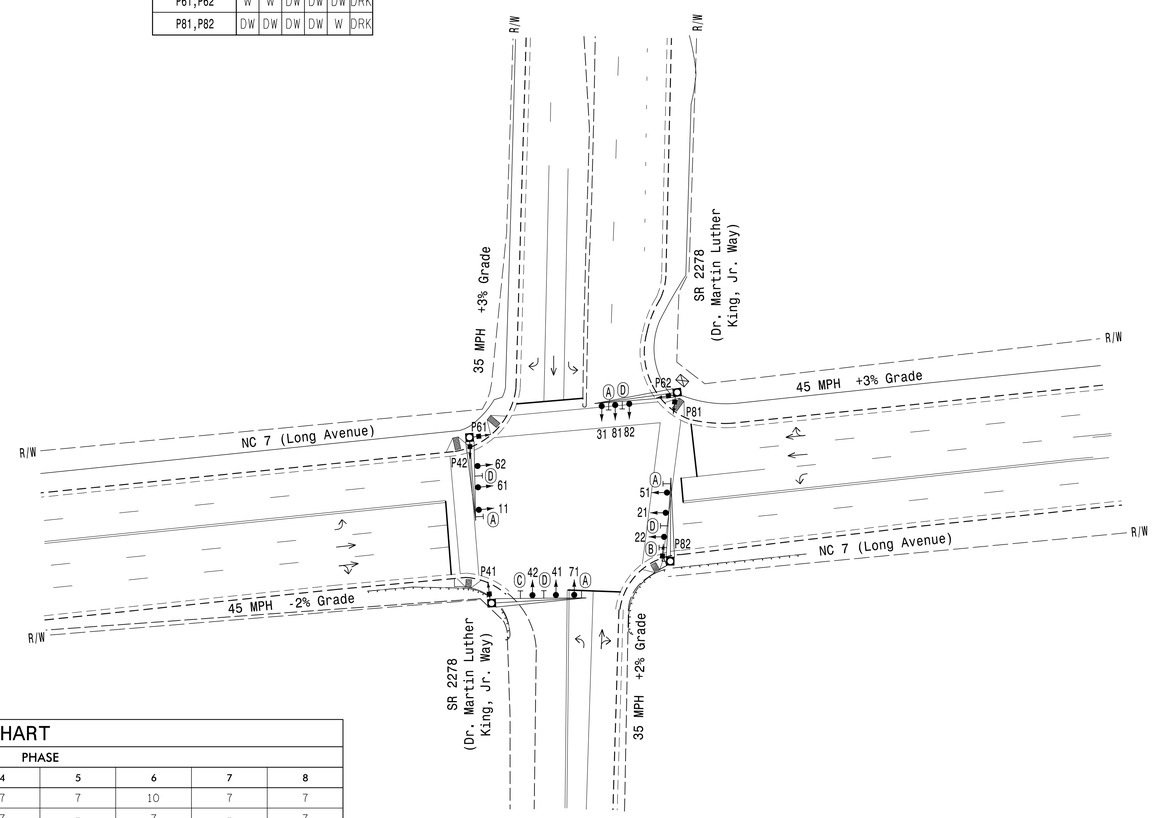
SIGNAL FACE	PHASE Ø1+6	Ø2+6	Ø2+5	Ø3+7	Ø4+8	FLASH
11	—	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
21,22	R	G	G	R	R	Y
31	~~R~~	~~R~~	~~R~~	—	~~R~~	~~R~~
41,42	R	R	R	R	G	R
51	~~R~~	~~R~~	—	~~R~~	~~R~~	~~R~~
61,62	G	G	R	R	R	Y
71	~~R~~	~~R~~	~~R~~	—	~~R~~	~~R~~
81,82	R	R	R	R	G	R
P41,P42	DW	DW	DW	DW	W	DRK
P61,P62	W	W	DW	DW	DW	DRK
P81,P82	DW	DW	DW	DW	W	DRK

SIGNAL FACE I.D.

All Heads L.E.D.



11	21,22	P41,P42
31	41,42	P61,P62
51	61,62	P81,P82
71	81,82	



5 Phase
Pre-Timed
Gastonia Signal 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. During coordination, phase 1+6 or phase 2+5 may be lagged.
4. Phase 3+7 may be lagged.
5. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
6. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
7. Pavement markings are existing.
8. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
9. Install new cabinet on the existing cabinet foundation.
10. All new cabinets and base extenders shall be black in color. See Project Special Provisions for details.
11. City of system data:
    Controller Asset #0929.

LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Metal Pole with Mastarm	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
	Directional Arrow	
N/A	Guardrail	
N/A	Curb Ramp	
Ⓐ	Left Arrow "ONLY" Sign (R3-5L)	Ⓐ
Ⓑ	"NO TURN ON RED" Sign (R10-11)	Ⓑ
Ⓒ	Right Arrow "ONLY" Sign (R3-5R)	Ⓒ
Ⓓ	Street Name Sign (D3-1)	Ⓓ

TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6	7	8
Min Green *	7	10	7	7	7	10	7	7
Walk *	-	-	-	7	-	7	-	7
Ped Clear	-	-	-	17	-	23	-	20
Veh. Extension *	-	-	-	-	-	-	-	-
Max 1 *	20	45	20	25	20	45	20	25
Yellow	3.0	4.7	3.0	3.7	3.0	4.3	3.0	3.7
Red Clear	2.6	1.7	2.8	1.8	3.1	1.9	2.6	1.8
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Actuations B4 Add *	-	-	-	-	-	-	-	-
Seconds /Actuation *	-	-	-	-	-	-	-	-
Max Initial *	-	-	-	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-	-	-	-
Time To Reduce *	-	-	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-	-	-
Locking Detector	-	-	-	-	-	-	-	-
Recall Position	MAX RECALL	MAX RECALL	MAX RECALL	PED/MAX	MAX RECALL	PED/MAX	MAX RECALL	PED/MAX
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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared For: Transportation Mobility and Safety Division, Signal Design Section, State of North Carolina, Department of Transportation
750 N.Greenfield Pkwy,Garner,NC 27529

NC 7 (Long Avenue)
at
SR 2278 (Dr. Martin Luther King, Jr. Way)

Division 12 Gaston County Gastonia

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

REVISIONS	INIT.	DATE

SCALE 0 40 1"=40'

NORTH CAROLINA PROFESSIONAL SEAL 044434 ENGINEER KEVIN P. BAUMANN

DocuSigned by: 3/11/2022
SIGNATURE DATE

SIG. INVENTORY NO. 12-0929

PLANS PREPARED IN THE OFFICE OF:
Kimley»Horn
NC License #F-0102
421 Fayetteville Street, Suite 600
Raleigh, NC 27601
(919) 677-2000

3/9/2022 11:15:46 AM Danielle.Curri \\kimley-horn.com\SE_RAL\REAL_TPTD_ITS\011036569 Gastonia Signal System\9 Signals\S4 - Signal Design\E120929-2021.dgn