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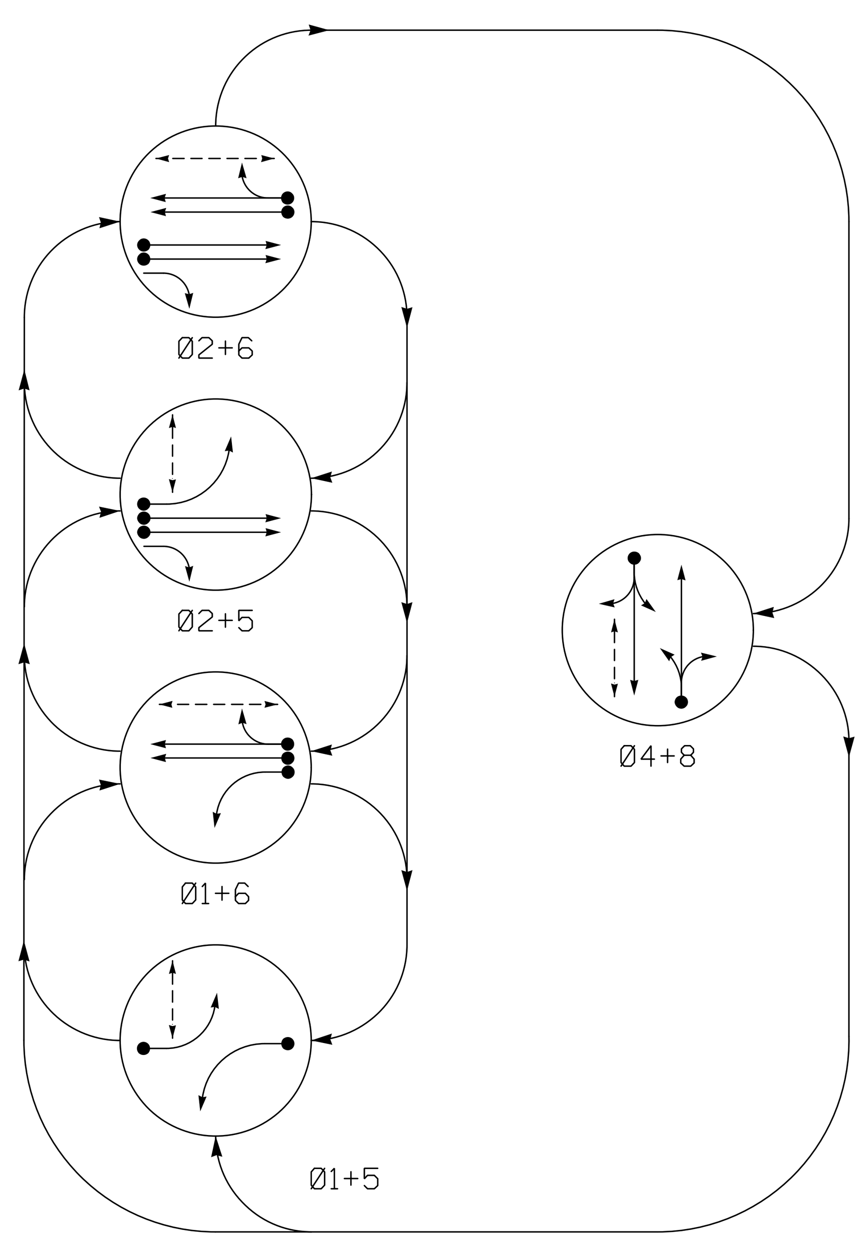
PROJECT REFERENCE NO.	SHEET NO.
C-5703	Sig.118.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

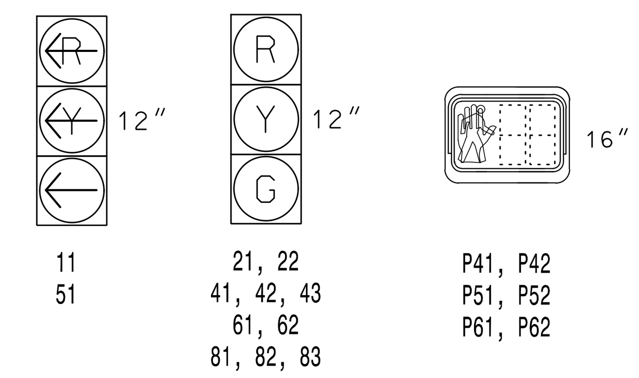
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø4+8	FLASH
11	←	←	←R	←R	←R	←R
21, 22	R	R	G	G	R	Y
41, 42, 43	R	R	R	R	G	R
51	←	←R	←	←R	←R	←R
61, 62	R	G	R	G	R	Y
81, 82, 83	R	R	R	R	G	R
P41, P42	DW	DW	DW	DW	W	DRK
P51, P52	W	DW	W	DW	DW	DRK
P61, P62	DW	W	DW	W	DW	DRK

SIGNAL FACE I.D.

All Heads L.E.D.



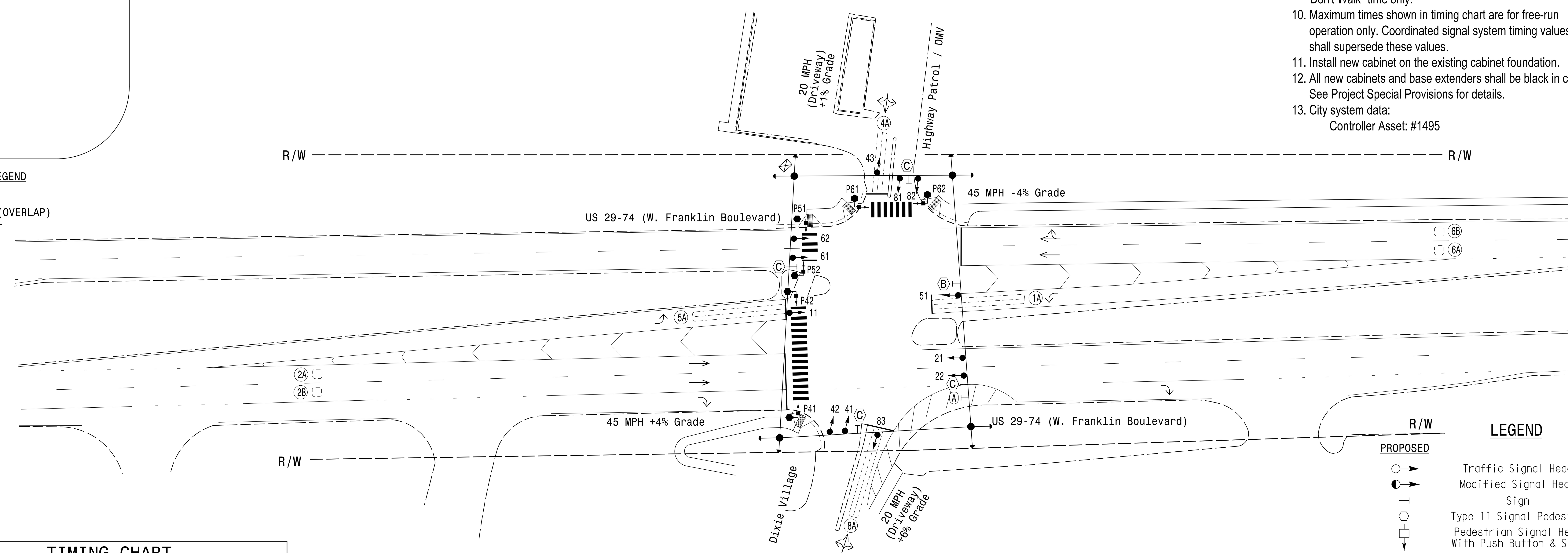
DETECTOR INSTALLATION CHART

DETECTOR: 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	0	2-4-2	-	1	Yes	-	-	-	N	-	X
2A	6X6	300	EXIST	-	2	Yes	-	-	X	N	-	X
2B	6X6	300	EXIST	-	2	Yes	-	-	X	N	-	X
4A	6X40	0	2-4-2	-	4	Yes	-	3	-	N	-	X
5A	6X60	0	2-4-2	-	5	Yes	-	-	-	N	-	X
6A	6X6	300	EXIST	-	6	Yes	-	-	X	N	-	X
6B	6X6	300	EXIST	-	6	Yes	-	-	X	N	-	X
8A	6X60	0	2-4-2	-	8	Yes	-	3	-	N	-	X

5 Phase
Fully Actuated
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. Phase 1 and/or phase 5 may be lagged.
4. Set all detector units to presence mode.
5. In the event of loop replacement, refer to the current ITS and Signal Design Manual and submit a Plan of Record to the Signal Design Section.
6. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
7. Pavement markings are existing.
8. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
9. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
10. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
11. Install new cabinet on the existing cabinet foundation.
12. All new cabinets and base extenders shall be black in color. See Project Special Provisions for details.
13. City system data:
    Controller Asset: #1495



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Type II Signal Pedestal	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	2-in Underground Conduit	
N/A	Right of Way	
N/A	Directional Arrow	
N/A	Curb Ramp	
(A)	Right Arrow "ONLY" Sign (R3-5R)	(A)
(B)	No U-Turn Sign (R3-4)	(B)
(C)	Street Name Sign (D3-1)	(C)

TIMING CHART

FEATURE	PHASE 1	2	4	5	6	8
Min Green *	7	12	7	7	12	7
Walk *	-	-	7	7	7	-
Ped Clear	-	-	20	7	11	-
Veh. Extension *	1.0	6.0	2.0	2.0	6.0	2.0
Max 1 *	15	100	30	15	100	30
Yellow	3.0	4.2	3.0	3.0	4.9	3.0
Red Clear	3.2	1.3	4.5	3.1	1.5	4.5
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.

**kimley-horn.com#SE_RAL1#RAL_TPTO#_ITS#011036569 Gastonia Signal System#9 Signals#54 - Signal Design#B121495-2021.dgn
11:13:38 AM Danielle.Curri
3/9/2022

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

Signal Upgrade

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

US 29-74 (W. Franklin Boulevard) at Entrance to Highway Patrol/DMV and Dixie Village

Division 12 | Gaston County | Gastonia

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

SCALE 0 40 — 1"=40'

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 044434 KEVIN P. BAUMANN

DocuSigned by: 5DC709A86BCB447...
SIGNATURE — DATE 3/11/2022

SIG. INVENTORY NO. 12-1495