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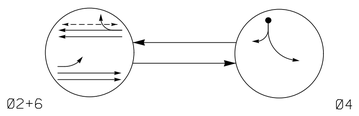
PROJECT REFERENCE NO.	SHEET NO.
C-5703	Sig.13.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

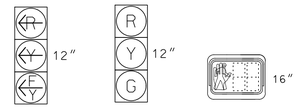
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2+6	PHASE Ø4+8	FLASH
21	FY	R	Y
22, 23	G	R	Y
41, 42	R	G	R
61, 62	G	R	Y
P61, P62	W	DW	DRK

SIGNAL FACE I.D.

All Heads L.E.D.



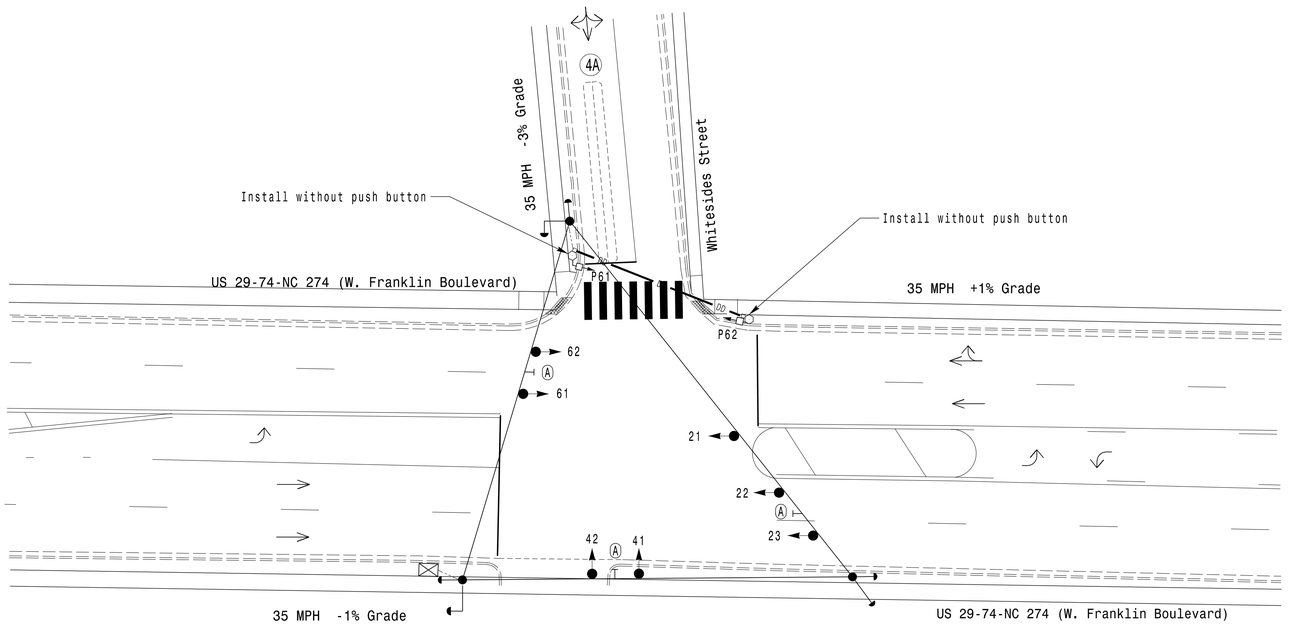
DETECTOR INSTALLATION CHART

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
4A	6X50	0	2-4-2	-	4	Yes	-	10	-	N	-	X

2 Phase Semi-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. Set all detector units to presence mode.
4. 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.
5. Install new cabinet on a new cabinet foundation.
6. All new cabinets and base extenders shall be black in color. See Project Special Provisions for details.
7. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
8. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
9. Pavement markings are existing.
10. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
11. Rewire all intersection equipment to new cabinet.
12. All proposed pedestrian pedestals shall be black in color. See Project Special Provisions for details.
13. All proposed pedestrian signal heads shall be black in color. See project Special Provisions for details.
14. City system data:
    Controller Asset: #0037



TIMING CHART

FEATURE	PHASE 2	PHASE 4	PHASE 6
Min Green *	10	7	10
Walk *	-	-	4
Ped Clear	-	-	8
Veh. Extension *	-	1.0	-
Max 1 *	60	30	60
Yellow	3.9	3.0	3.9
Red Clear	1.1	2.3	1.1
Red Revert	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	-	PED / MAX
Dual Entry	-	-	-
Simultaneous Gap	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.

LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Type II Signal Pedestal	
	Pedestrian Signal Head With Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
DD	Directional Drill	N/A
N/A	Right of Way	
	Directional Arrow	
A	Street Name Sign (D3-1)	A

Signal Upgrade

Prepared For: Transportation Mobility and Safety Division, North Carolina Department of Transportation, Signal Design Section

US 29-74-NC 274 (Franklin Boulevard) at Whitesides Street

Division 12 Gaston County Gastonia

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

750 N.Greenfield Pkwy,Garner,NC 27529

SCALE 0 20 1"=20'

REVISIONS	INIT.	DATE

PLANS PREPARED IN THE OFFICE OF:
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(919) 677-2000

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NORTH CAROLINA PROFESSIONAL SEAL 044434 ENGINEER KEVIN P. BAUMANN

DocuSigned by: [signature] 3/11/2022
SIGNATURE DATE

SIG. INVENTORY NO. 12-0037

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