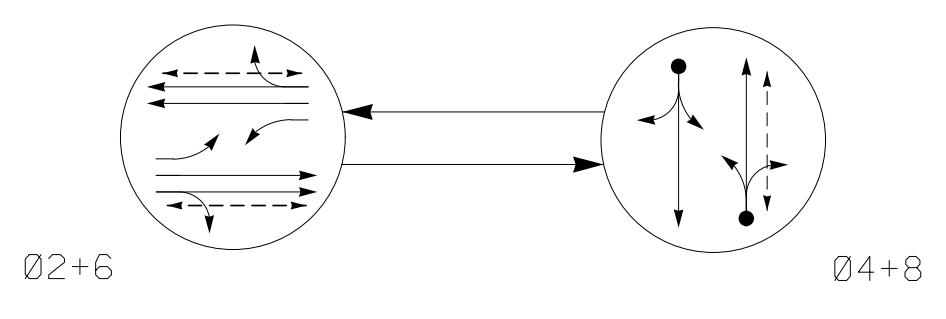


PHASING DIAGRAM



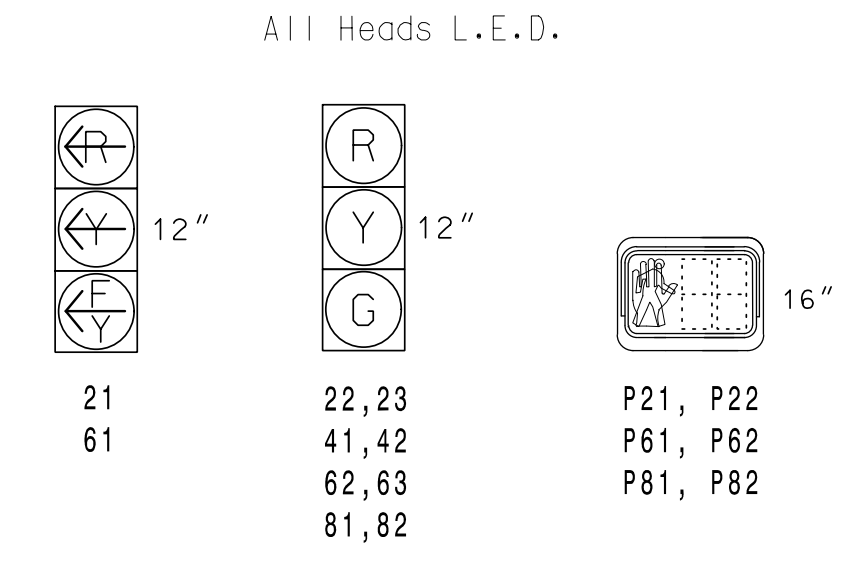
PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

SIGNAL FACE	PHASE		
	Ø 2+6	Ø 4+8	FLASH
21	F	R	Y
22, 23	G	R	Y
41, 42	R	G	R
61	F	R	Y
62, 63	G	R	Y
81, 82	R	G	R
P21, P22	W	DW	DRK
P61, P62	W	DW	DRK
P81, P82	DW	W	DRK

SIGNAL FACE I.D.



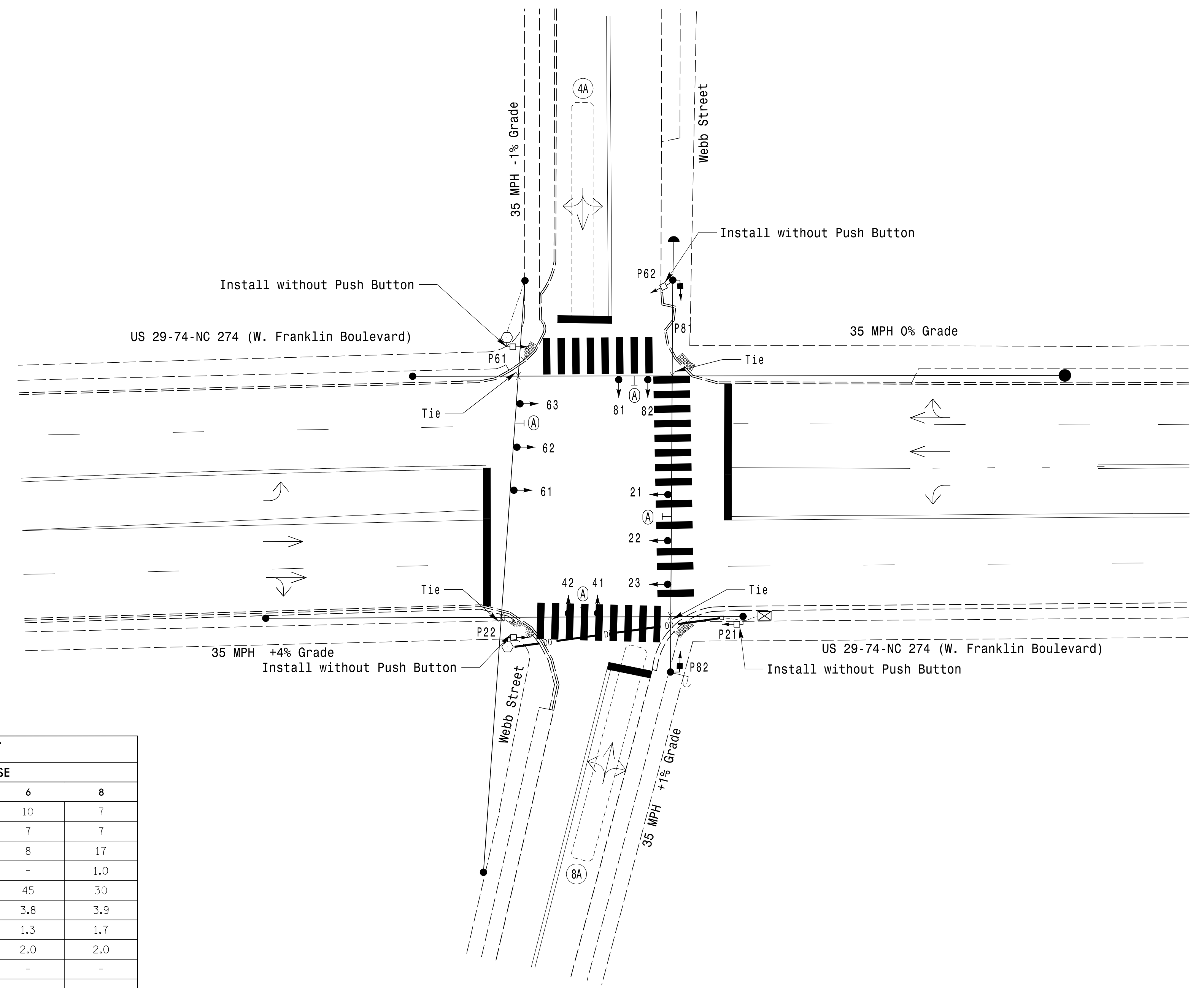
DETECTOR INSTALLATION CHART

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
4A	6X60	0	EXIST	-	4	Yes	-	-	-	N	-	X
8A	6X60	+5	EXIST	-	8	Yes	-	-	-	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. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
6. Install new cabinet on the existing cabinet foundation.
7. All new cabinets and base extenders shall be black in color. See Project Special Provisions for details.
8. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls on pedestrian phase 8.
9. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
10. Pavement markings are existing.
11. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
12. All proposed pedestrian signal heads shall be black in color. See Project Special Provisions for details.
13. All proposed pedestrian pedestals and pushbutton posts shall be black in color. See Project Special Provisions for details.
14. City system data:
Controller Asset #0031.



TIMING CHART

FEATURE	PHASE			
	2	4	6	8
Min Green *	10	7	10	7
Walk *	7	-	7	7
Ped Clear	10	-	8	17
Veh. Extension *	-	1.0	-	1.0
Max I *	45	30	45	30
Yellow	3.8	3.9	3.8	3.9
Red Clear	1.3	1.7	1.3	1.7
Red Revert	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	PED/MAX	-	PED/MAX	-
Dual Entry	-	X	-	X
Simultaneous Gap	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.

LEGEND

PROPOSED	EXISTING
○ → Traffic Signal Head	● → Traffic Signal Head
○ → Modified Signal Head	N/A
□ → Sign	□ → Sign
○ → Pedestrian Signal Head With Sign	○ → Pedestrian Signal Head With Sign
○ → Signal Pole with Guy	○ → Signal Pole with Guy
○ → Signal Pole with Sidewalk Guy	○ → Signal Pole with Sidewalk Guy
⊠ → Inductive Loop Detector	⊠ → Inductive Loop Detector
⊠ → Controller & Cabinet	⊠ → Controller & Cabinet
⊠ → Junction Box	⊠ → Junction Box
--- 2-in Underground Conduit	--- 2-in Underground Conduit
--- Directional Drill	N/A
N/A Right of Way	N/A Right of Way
→ Directional Arrow	→ Directional Arrow
N/A Curb Ramp	N/A Curb Ramp
Ⓐ Street Name Sign (D3-1)	Ⓐ Street Name Sign (D3-1)

Signal Upgrade

Prepared For: **US 29-74-NC 274 (W. Franklin Boulevard) at Webb Street**

Division 12 Gaston County Gastonia

PLAN DATE: May 2021 REVIEWED BY: SL Phillips

PREPARED BY: DM Curri REVIEWED BY: KP Baumann

750 N. Greenfield Pkwy, Garner, NC 27529

PLANS PREPARED IN THE OFFICE OF: **Kimley-Horn**

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Raleigh, NC 27601
(919) 677-2000

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Seal: NORTH CAROLINA PROFESSIONAL ENGINEERS SEAL 044434 KEVIN P. BAUMANN

3/11/2022

SIG. INVENTORY NO. 12-0031

3/9/2022 11:12:01 AM D:\m1e\c\curri***kimley-horn.com\SEL\RAL\TPTOK\ITS\01\036569 Gastonia Signal System\9 Signal\Des\gn\A120031-2021.dgn