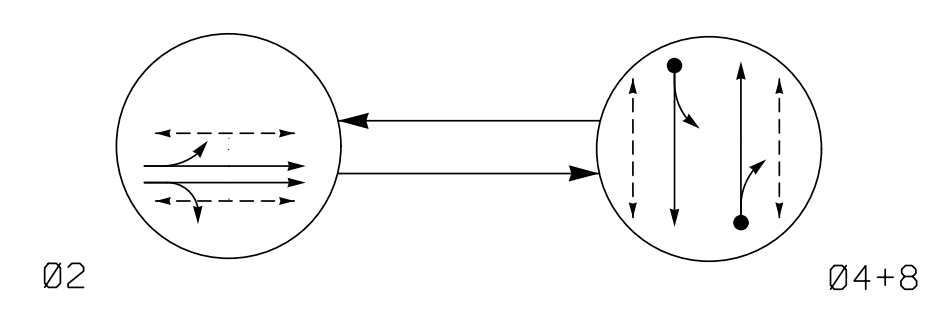


PHASING DIAGRAM

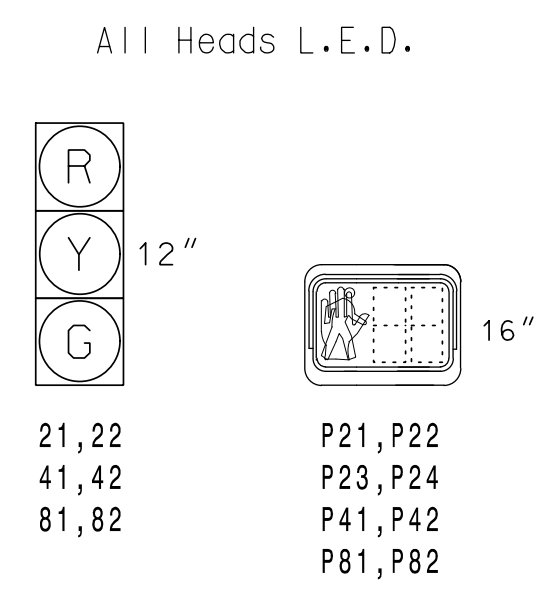


PHASING DIAGRAM DETECTION LEGEND

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

SIGNAL FACE	PHASE		
	Ø 2	Ø 4 + 8	FLASH
21, 22	G	R	Y
41, 42	R	G	R
81, 82	R	G	R
P21, P22, P23, P24	W	DW	DRK
P41, P42	DW	W	DRK
P81, P82	DW	W	DRK

SIGNAL FACE I.D.

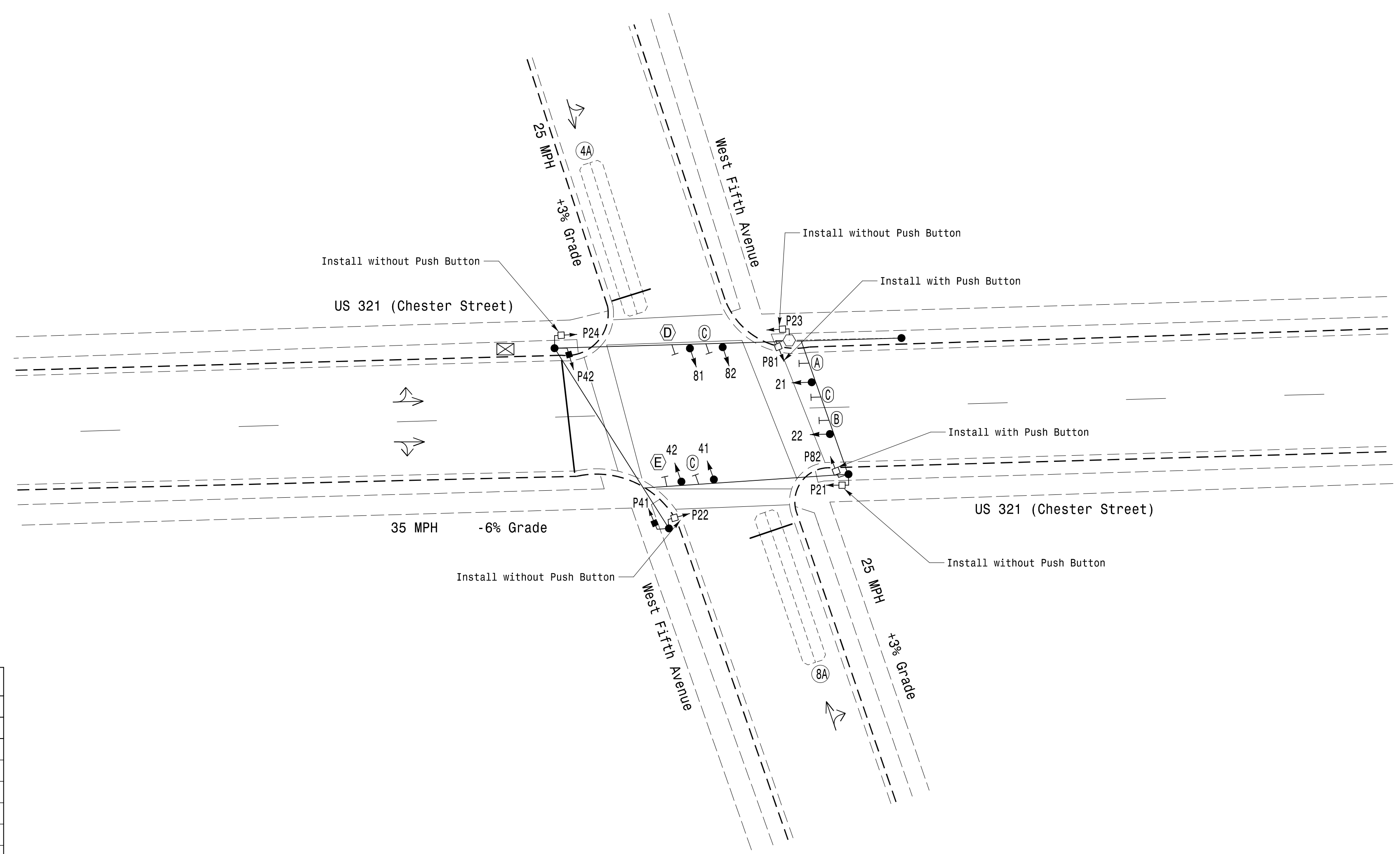


LOOP	SIZE (FT)	DETECTOR		PROGRAMMING								
		DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	LOOP SYSTEM	NEW CARD
4A	6X40	+5	2-4-2	-	4	Yes	-	3	-	N	-	X
8A	6X40	+5	2-4-2	-	8	Yes	-	10	-	N	-	X

2 Phase Semi-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.
- Set all detector units to presence mode.
- 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.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls on phase 4 and phase 8.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- 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.
- 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.
- All proposed pedestrian signal heads shall be black in color. See Project Special Provisions for details.
- All proposed pedestrian pedestals and pushbutton posts shall be black in color. See Project Special Provisions for details.
- City system data:
Controller Asset #0071.



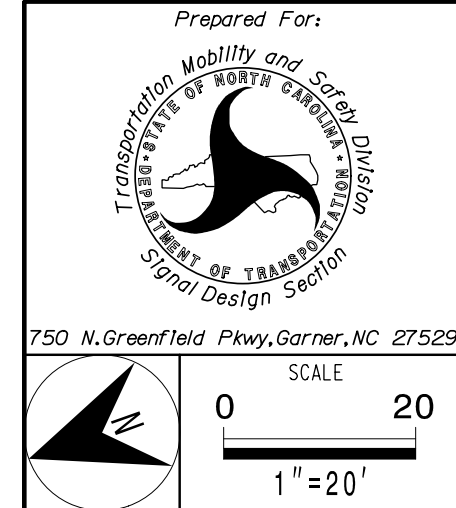
FEATURE	PHASE		
	2	4	8
Min Green *	10	7	7
Walk *	4	4	4
Ped Clear	8	9	9
Veh. Extension *	-	2.0	2.0
Max I *	45	25	25
Yellow	4.3	3.1	3.1
Red Clear	1.1	1.7	1.7
Red Revert	2.0	2.0	2.0
Actuations B4 Add *	-	-	-
Seconds / Actuation *	-	-	-
Max Initial *	-	-	-
Time Before Reduction *	-	-	-
Time To Reduce *	-	-	-
Minimum Gap	-	-	-
Locking Detector	-	-	-
Recall Position	PED/MAX	-	-
Dual Entry	-	X	X
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.

PROPOSED	EXISTING
○ → Traffic Signal Head	● → N/A
○ → Modified Signal Head	○ → N/A
○ → Sign	○ → N/A
○ → Pedestrian Signal Head With Sign	○ → N/A
○ → Type II Signal Pedestal	○ → N/A
○ → Signal Pole with Guy	○ → N/A
○ → Signal Pole with Sidewalk Guy	○ → N/A
○ → Inductive Loop Detector	○ → N/A
○ → Controller & Cabinet	○ → N/A
○ → Junction Box	○ → N/A
○ → 2-in Underground Conduit	○ → N/A
○ → Right of Way	○ → N/A
○ → Directional Arrow	○ → N/A
(A) Combined Through and Left Arrow Sign (R3-6L)	(A) Combined Through and Left Arrow Sign (R3-6L)
(B) Combined Through and Right Arrow Sign (R3-6R)	(B) Combined Through and Right Arrow Sign (R3-6R)
(C) Street Name Sign (D3-1)	(C) Street Name Sign (D3-1)
(D) No Left Turn Sign (R3-2)	(D) No Left Turn Sign (R3-2)
(E) No Right Turn Sign (R3-1)	(E) No Right Turn Sign (R3-1)

Signal Upgrade

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



Prepared For:		US 321 (Chester Street) at West Fifth Avenue	
Division 12		Gaston County Gastonia	
PLAN DATE:	May 2021	REVIEWED BY:	SL Phillips
PREPARED BY:	DM Curri	REVIEWED BY:	KP Baumann
REVISIONS	INIT.	DATE	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DocuSigned by: Kevin P. Baumann SIGNATURE	DATE 3/11/2022
SIG. INVENTORY NO.	12-0071

3/9/2022 11:16:06 AM Don@le.curf1 ***kimley-horn.com\\SEL\\RAL\\IP\\OK-ITS\\01030569 Gastonia Signal System9 Signal Design\\20071-2021.dgn