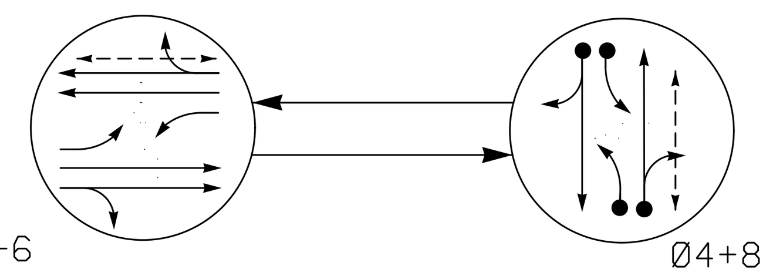
PROJECT REFERENCE NO.	SHEET NO.
C-5703	Sig.33.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

EV PREEMPT PHASES

(Medium Priority)

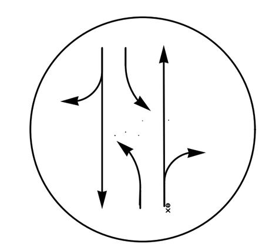
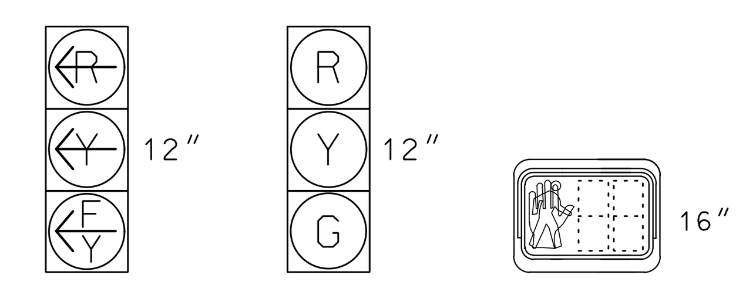


TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2+6	Ø4+8	PRE 3	FLASH
21	←F/Y	←R	←R	←Y
22, 23	G	R	R	Y
41, 42	R	G	G	R
61	←F/Y	←R	←R	←Y
62, 63	G	R	R	Y
81, 82	R	G	G	R
P61, P62	W	DW	DW	DRK
P81, P82	DW	W	DW	DRK

SIGNAL FACE I.D.

All Heads L.E.D.



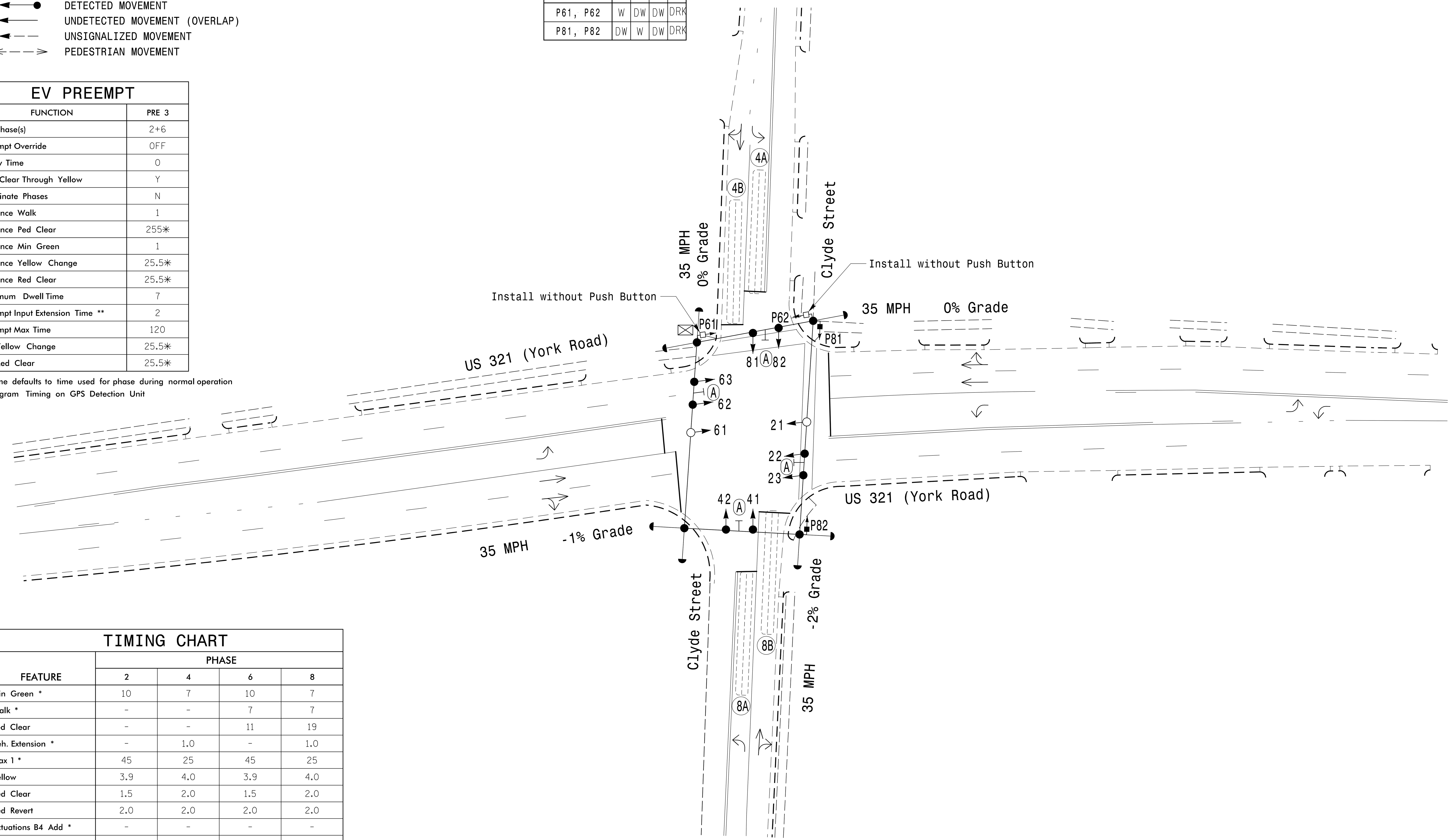
DETECTOR INSTALLATION CHART

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	6X60	0	2-4-2	-	4	Yes	-	-	-	N	-	X
4B	6X60	0	2-4-2	-	4	Yes	-	5	-	N	-	X
8A	6X60	0	2-4-2	-	8	Yes	-	-	-	N	-	X
8B	6X60	0	2-4-2	-	8	Yes	-	5	-	N	-	X

EV PREEMPT

FUNCTION	PRE 3
Exit Phase(s)	2+6
Preempt Override	OFF
Delay Time	0
Ped Clear Through Yellow	Y
Terminate Phases	N
Entrance Walk	1
Entrance Ped Clear	255*
Entrance Min Green	1
Entrance Yellow Change	25.5*
Entrance Red Clear	25.5*
Minimum Dwell Time	7
Preempt Input Extension Time **	2
Preempt Max Time	120
Exit Yellow Change	25.5*
Exit Red Clear	25.5*

* Time defaults to time used for phase during normal operation
** Program Timing on GPS Detection Unit



TIMING CHART

FEATURE	PHASE 2	4	6	8
Min Green *	10	7	10	7
Walk *	-	-	7	7
Ped Clear	-	-	11	19
Veh. Extension *	-	1.0	-	1.0
Max 1 *	45	25	45	25
Yellow	3.9	4.0	3.9	4.0
Red Clear	1.5	2.0	1.5	2.0
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.

2 Phase
Semi-Actuated
w/ Emergency Vehicle Preemption
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. Reposition existing signal heads numbered 22, 23, 62, and 63.
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. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls on phase 8.
8 Program pedestrian heads to countdown the flashing "Don't Walk" time only.
9. Remove existing "Yield" signs-(R1-2).
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. Install new cabinet on the existing cabinet foundation.
13. All new cabinets and base extenders shall be black in color. See Project Special Provisions for details.
14. All proposed pedestrian signal heads shall be black in color. See Project Special Provisions for details.
15. Reconnect lead-in cable to separate loops 4A, 4B, 8A, & 8B as shown.
16. Install GPS emergency preemption system per manufacturer's instructions to achieve preemption needed, as shown in phasing diagram.
17. City system data:
    Controller Asset #0065.

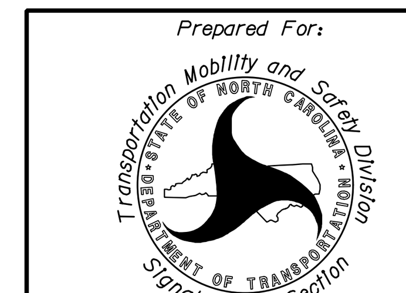
LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	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	
	Directional Arrow	
Ⓐ	Street Name Sign (D3-1)	Ⓐ

Signal Upgrade

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

Prepared For:



750 N.Greenfield Pkwy,Garner,NC 27529

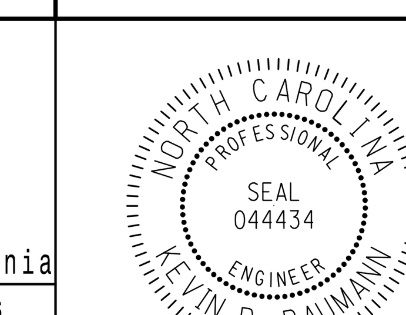
SCALE 0 30
1"=30'

US 321 (York Road)
at
Clyde Street

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:
SIGNATURE 3/11/2022
DATE

SIG. INVENTORY NO. 12-0065

11:13:45 AM Danielle.Curri 3/9/2022