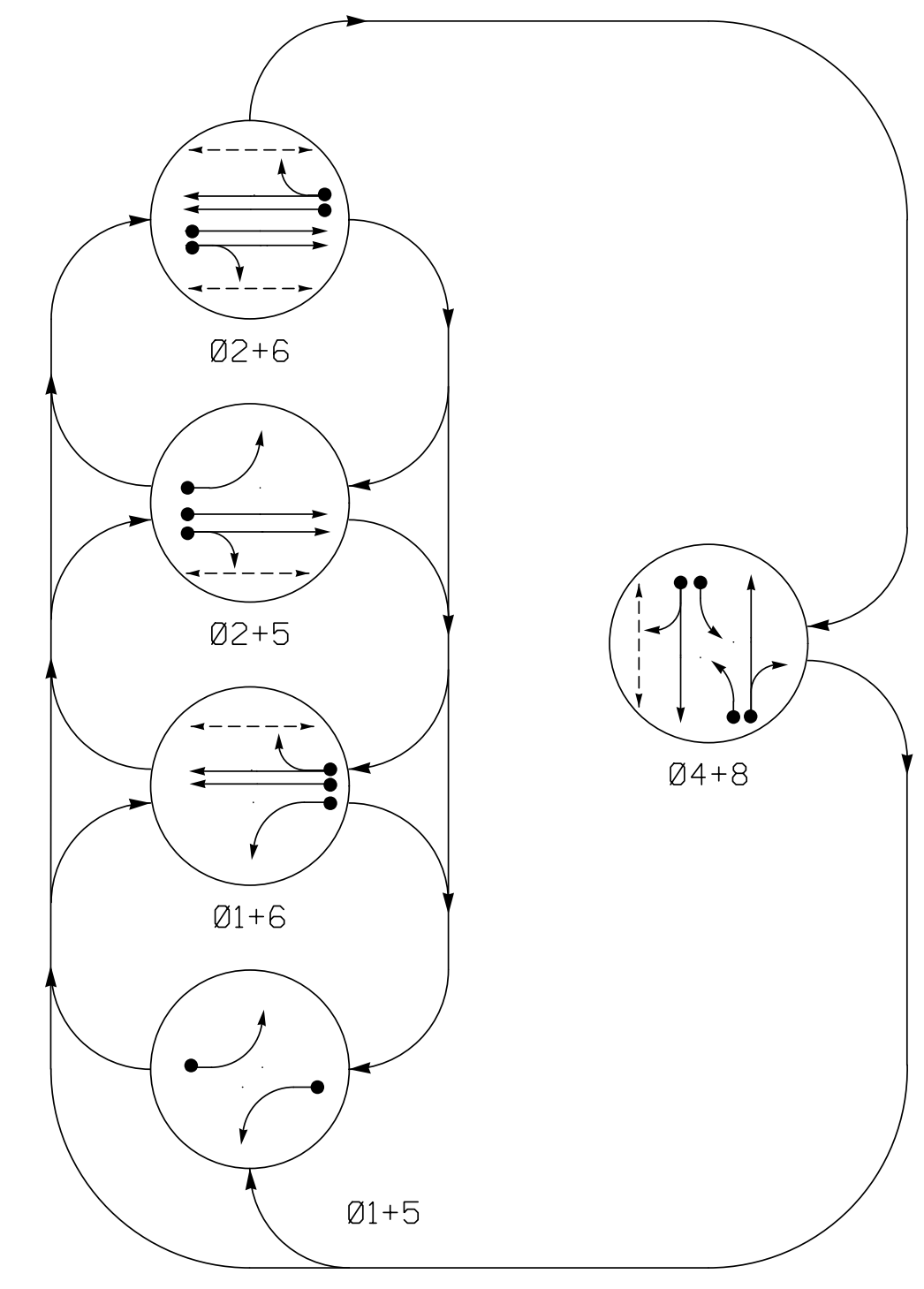


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

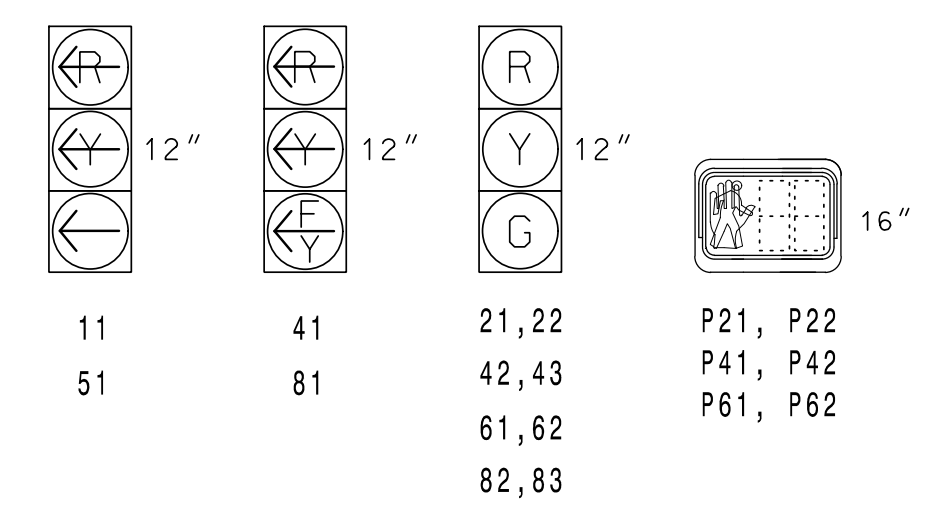
- DETECTED MOVEMENT
- ◄ UNDETECTED MOVEMENT (OVERLAP)
- ◄ UNSIGNALIZED MOVEMENT
- ⇄ PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE					
	Ø 1 + 5	Ø 1 + 6	Ø 2 + 5	Ø 2 + 6	Ø 4 + 8	Ø 4 + 8
11	←	←	←	←	←	←
21, 22	R	R	G	G	R	Y
41	←	←	←	←	←	←
42, 43	R	R	R	R	G	R
51	←	←	←	←	←	←
61, 62	R	G	R	G	R	Y
81	←	←	←	←	←	←
82, 83	R	R	R	R	G	R
P21, P22	DW	DW	W	W	DW	DRK
P41, P42	DW	DW	DW	DW	W	DRK
P61, P62	DW	W	DW	W	DW	DRK

SIGNAL FACE I.D.

All Heads L.E.D.

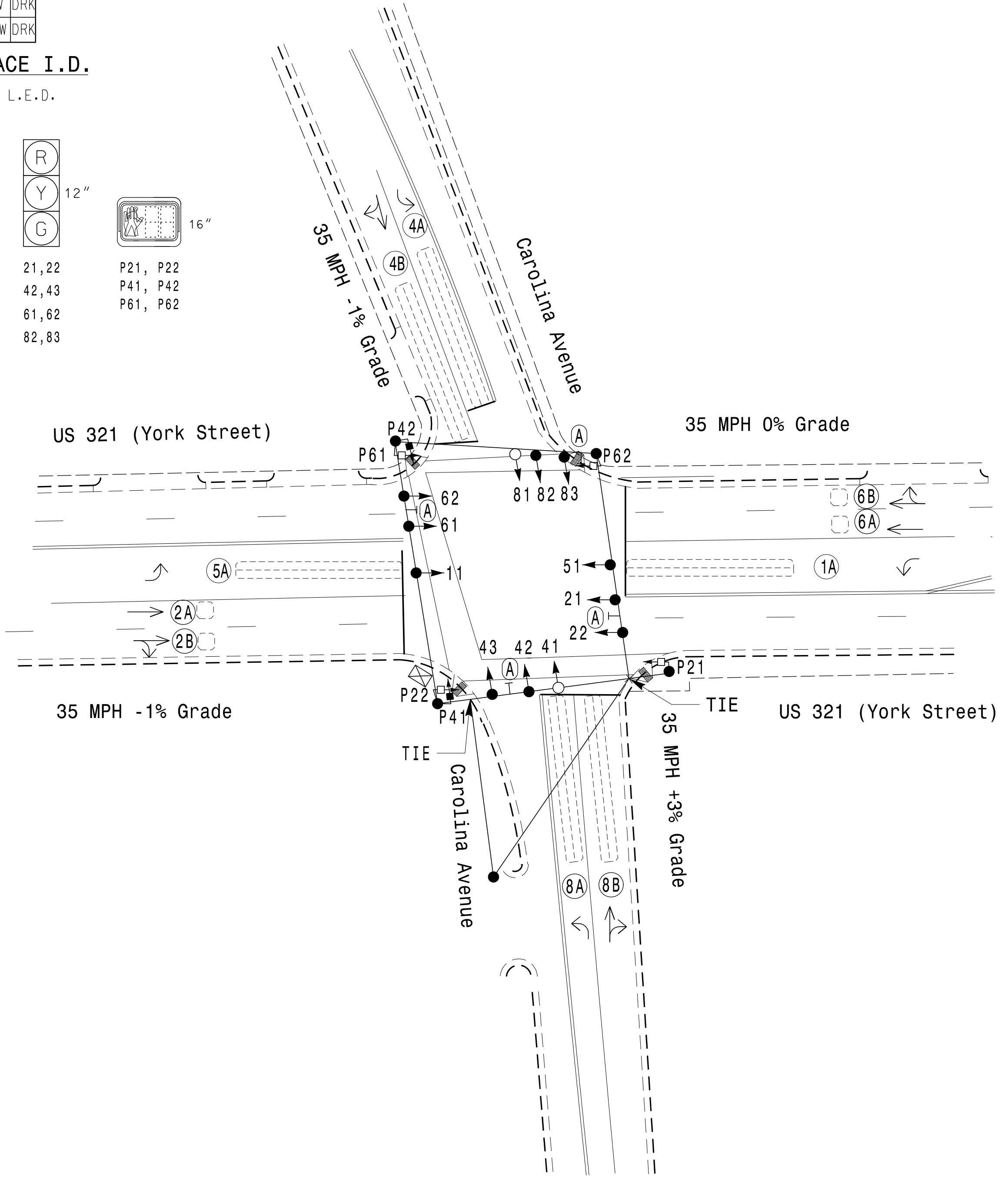


DETECTOR INSTALLATION CHART

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
1A	6X60	0	2-4-2	-	1	Yes	-	3	-	N	-	X
2A	6X6	70	EXIST	-	2	Yes	-	-	-	N	-	X
2B	6X6	70	EXIST	-	2	Yes	-	-	-	N	-	X
4A	6X60	0	2-4-2	-	4	Yes	-	-	-	N	-	X
4B	6X60	0	2-4-2	-	4	Yes	-	10	-	N	-	X
5A	6X60	0	2-4-2	-	5	Yes	-	3	-	N	-	X
6A	6X6	70	EXIST	-	6	Yes	-	-	-	N	-	X
6B	6X6	70	EXIST	-	6	Yes	-	-	-	N	-	X
8A	6X60	0	2-4-2	-	8	Yes	-	-	-	N	-	X
8B	6X60	0	2-4-2	-	8	Yes	-	10	-	N	-	X

5 Phase Fully Actuated Gastonia Signal System

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. Reposition existing signal heads numbered 42, 43, 82, and 83.
5. Set all detector units to presence mode.
6. 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.
7. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
8. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
9. Remove existing "Left Turn Only" sign (R3-5L).
10. Pavement markings are existing
11. Install new cabinet on the existing cabinet foundation.
12. Existing signal heads 41, 42, 81, and 82 have been relabeled to 42, 43, 82, and 83, respectively.
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. City system data:
Controller Asset #0066.

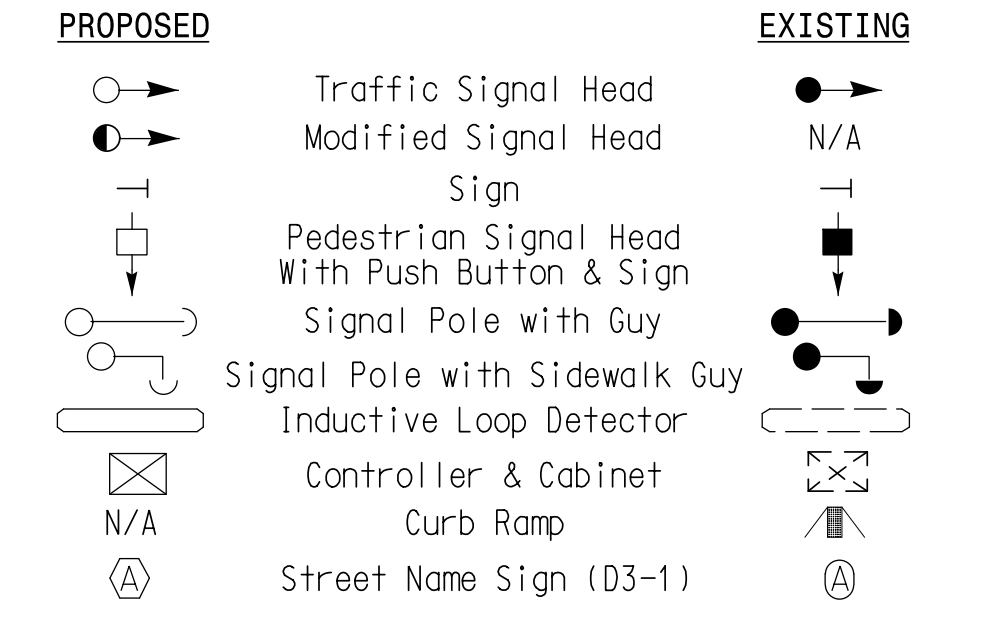


TIMING CHART

FEATURE	PHASE						
	1	2	4	5	6	8	
Min Green *	7	10	7	7	10	7	
Walk *	-	7	7	-	7	-	
Ped Clear	-	17	22	-	14	-	
Veh. Extension *	1.0	3.0	1.0	1.0	3.0	2.0	
Max 1 *	20	45	25	20	45	25	
Yellow	3.0	3.9	3.9	3.0	3.8	3.9	
Red Clear	1.9	1.6	2.5	2.3	1.4	2.5	
Red Revert	2.0	2.0	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	-	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.

LEGEND



Signal Upgrade

Prepared For:
Kimley-Horn

750 N. Greenfield Pkwy, Garner, NC 27529
NC License #0102
421 Fayetteville Street, Suite 600
Raleigh, NC 27601
(919) 677-2000

US 321 (York Street) at Carolina Avenue

Division 12 Gaston County Gastonia

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

REVISIONS: _____ INIT. DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

3/11/2022

SIGNATURE: _____ DATE: _____
SIG. INVENTORY NO. 12-0066

3/9/2022 11:13:47 AM Dantellb.Curr1 ***Kimley-Horn.com/E-RAL/IRAL_TIP/DK-TIS/011036569 Gastonia Signal System9 Signal/WS4 - Signal Design/12066-2021.dgn