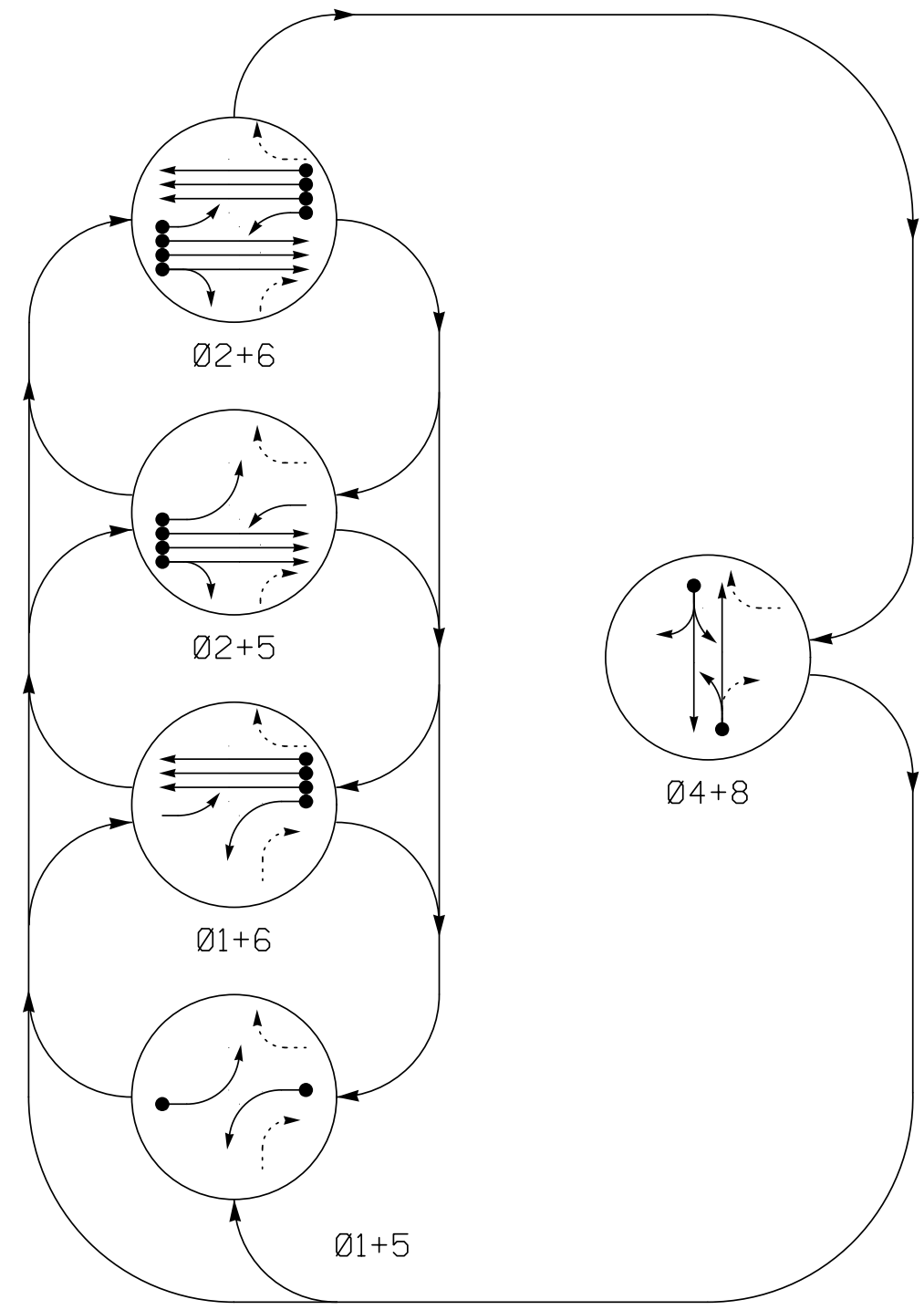


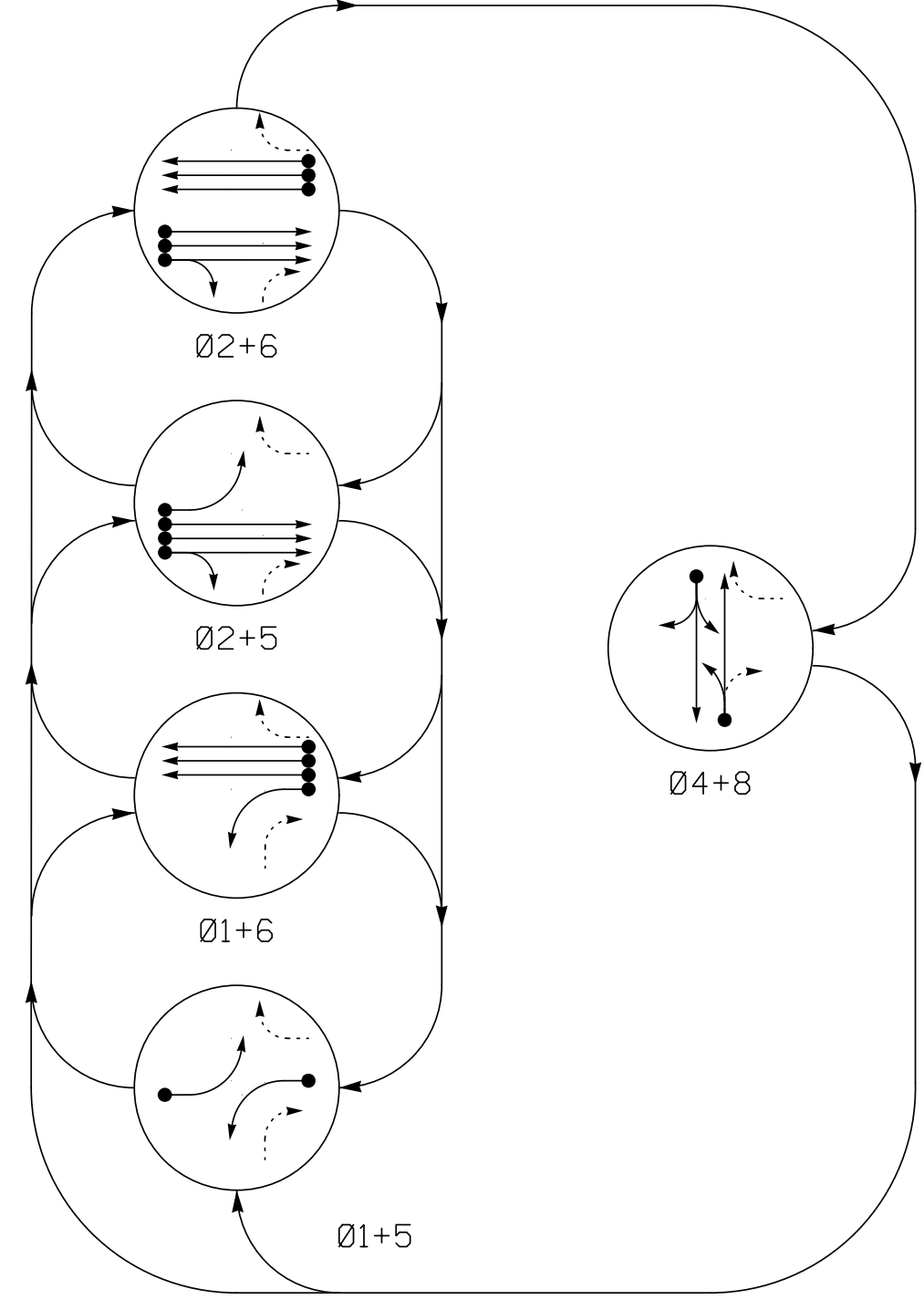
DEFAULT PHASING DIAGRAM



DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE					
	Ø 1+5	Ø 1+6	Ø 2+5	Ø 2+6	Ø 4+8	FLASH
11						
21, 22, 23	R	R	G	G	R	Y
41, 42	R	R	R	R	G	R
51						
61, 62, 63	R	G	R	G	R	Y
81, 82	R	R	R	R	G	R

ALTERNATE PHASING DIAGRAM



ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE					
	Ø 1+5	Ø 1+6	Ø 2+5	Ø 2+6	Ø 4+8	FLASH
11						
21, 22, 23	R	R	G	G	R	Y
41, 42	R	R	R	R	G	R
51						
61, 62, 63	R	G	R	G	R	Y
81, 82	R	R	R	R	G	R

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	6X40	0	2-4-2	-	1	Yes	-	15*	-	N	-	X
2A	6X6	355	EXIST	-	2	Yes	-	-	-	X	N	-
2B	6X6	355	EXIST	-	2	Yes	-	-	-	X	N	-
2C	6X6	355	EXIST	-	2	Yes	-	-	-	X	N	-
4A	6X60	+5	2-4-2	-	4	Yes	-	3	-	N	-	X
4B	6X40	+5	2-4-2	-	4	Yes	-	15	-	N	-	X
5A	6X40	0	2-4-2	-	5	Yes	-	15*	-	N	-	X
6A	6X6	355	EXIST	-	6	Yes	-	-	-	X	N	-
6B	6X6	355	EXIST	-	6	Yes	-	-	-	X	N	-
6C	6X6	355	EXIST	-	6	Yes	-	-	-	X	N	-
8A	6X60	+5	2-4-2	-	8	Yes	-	3	-	N	-	X
8B	6X25	+5	2-4-2	-	8	Yes	-	10	-	N	-	X

* Disable delay during Alternate Phasing Operation.
Disable phase call for loop during Alternate Phasing operation.

**5 Phase Fully Actuated
With Alternate Phasing Operation
Gastonia Signal System**

NOTES

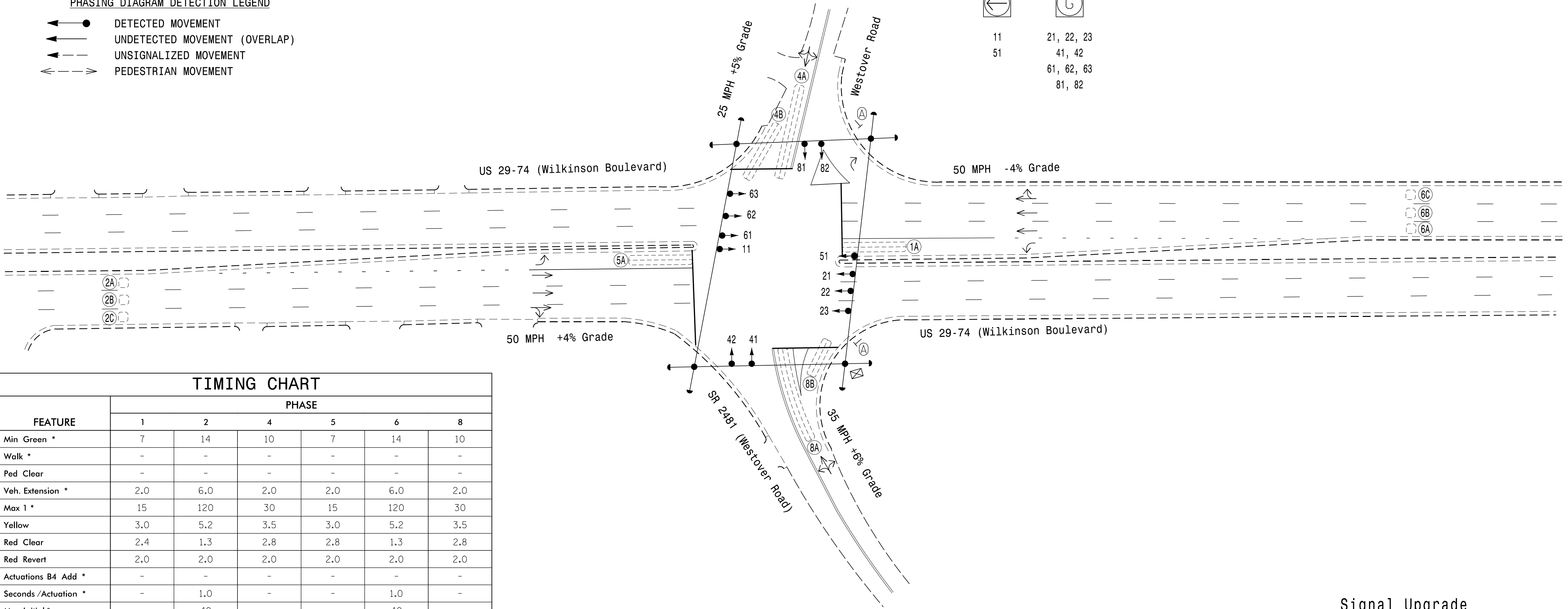
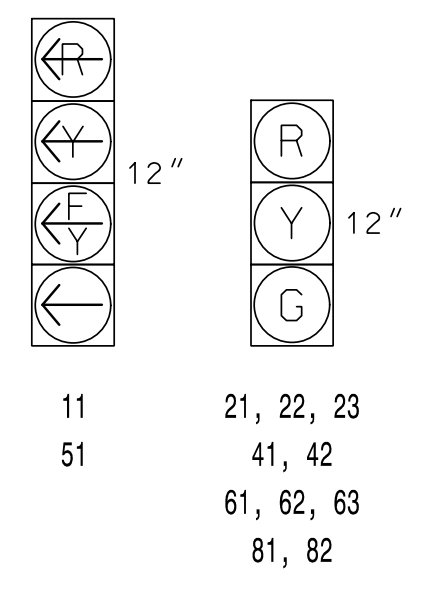
- Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- Set all detector units 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.
- Pavement markings are existing.
- The City Engineer or their representative will determine the hours of use for each phasing plan.
- 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.
- City system data:
Controller Asset #1348

PHASING DIAGRAM DETECTION LEGEND

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

SIGNAL FACE I.D.

All Heads L.E.D.



TIMING CHART

FEATURE	PHASE					
	1	2	4	5	6	8
Min Green *	7	14	10	7	14	10
Walk *	-	-	-	-	-	-
Ped Clear	-	-	-	-	-	-
Veh. Extension *	2.0	6.0	2.0	2.0	6.0	2.0
Max 1 *	15	120	30	15	120	30
Yellow	3.0	5.2	3.5	3.0	5.2	3.5
Red Clear	2.4	1.3	2.8	2.8	1.3	2.8
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0
Actuations B4 Add *	-	-	-	-	-	-
Seconds / Actuation *	-	1.0	-	-	1.0	-
Max Initial *	-	40	-	-	40	-
Time Before Reduction *	-	15	-	-	15	-
Time To Reduce *	-	30	-	-	30	-
Minimum Gap	-	3.1	-	-	3.1	-
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

PROPOSED	EXISTING
○ → Traffic Signal Head	● → N/A
○ → Modified Signal Head	○ → N/A
□ → Sign	□ → N/A
□ → Pedestrian Signal Head With Push Button & Sign	□ → 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
→ N/A Right of Way	→ N/A Right of Way
→ Directional Arrow	→ Directional Arrow
(A) "YIELD" Sign (R1-2)	(A) "YIELD" Sign (R1-2)

Signal Upgrade

Prepared For: **US 29-74 (Wilkinson Boulevard) at SR 2481 (Westover Road) / Westover Road**

Division 12 Gaston County Gastonia

PLAN DATE: May 2021 REVIEWED BY: SL Phillips

PREPARED BY: SP Pennington REVIEWED BY: KP Baumann

750 N. Greenfield Pkwy, Garner, NC 27529

NC License #0-102
421 Fayetteville Street, Suite 600
Raleigh, NC 27601
(919) 677-2000

SCALE: 1" = 40'

REVISIONS: _____

INITIALS: _____ DATE: _____

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

Designed by: _____ DATE: 3/11/2022

SIGNATURE: _____ DATE: _____

SIG. INVENTORY NO. 12-1348

3/9/2022 11:12:42 AM Dantellb.Curr1 ***K:\meyer-horn.com\SE-RAL\MRAL_TPIDK-LTS\011036569_Gastonia Signal System\Signal\SW54 - Signal Design\W121348-2021.dgn