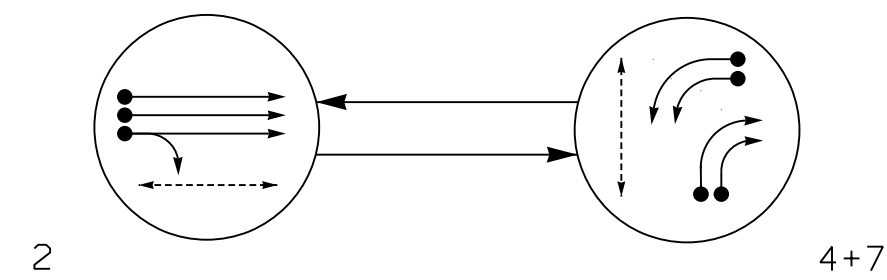


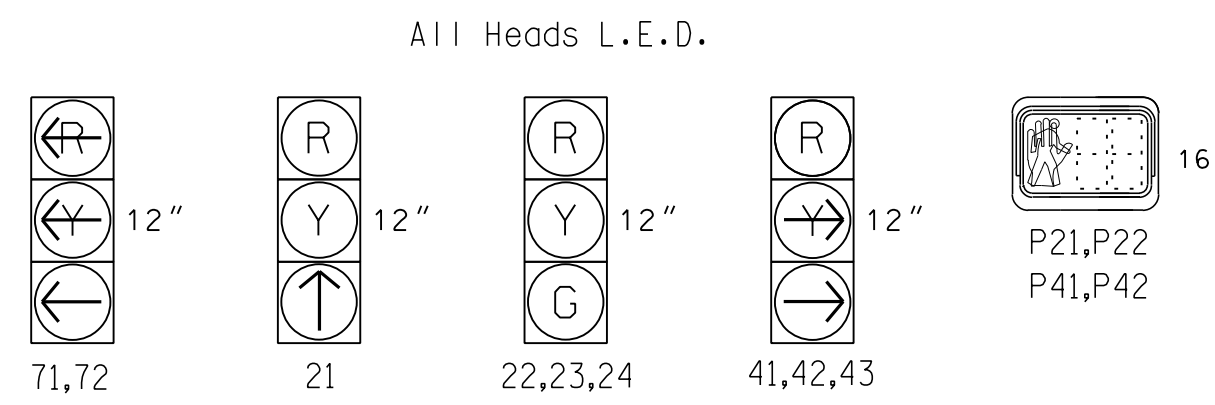
PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND  
 ● DETECTED MOVEMENT  
 ◄ UNDETECTED MOVEMENT (OVERLAP)  
 - - - UNSIGNALIZED MOVEMENT  
 - - - PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE		
	2	4+7	FLASH
21	↑	R	R
22,23,24	G	R	R
41,42,43	R	←	R
71,72	←R	←	←R
P21,P22	W	DW	DRK
P41,P42	DW	W	DRK

SIGNAL FACE I.D.

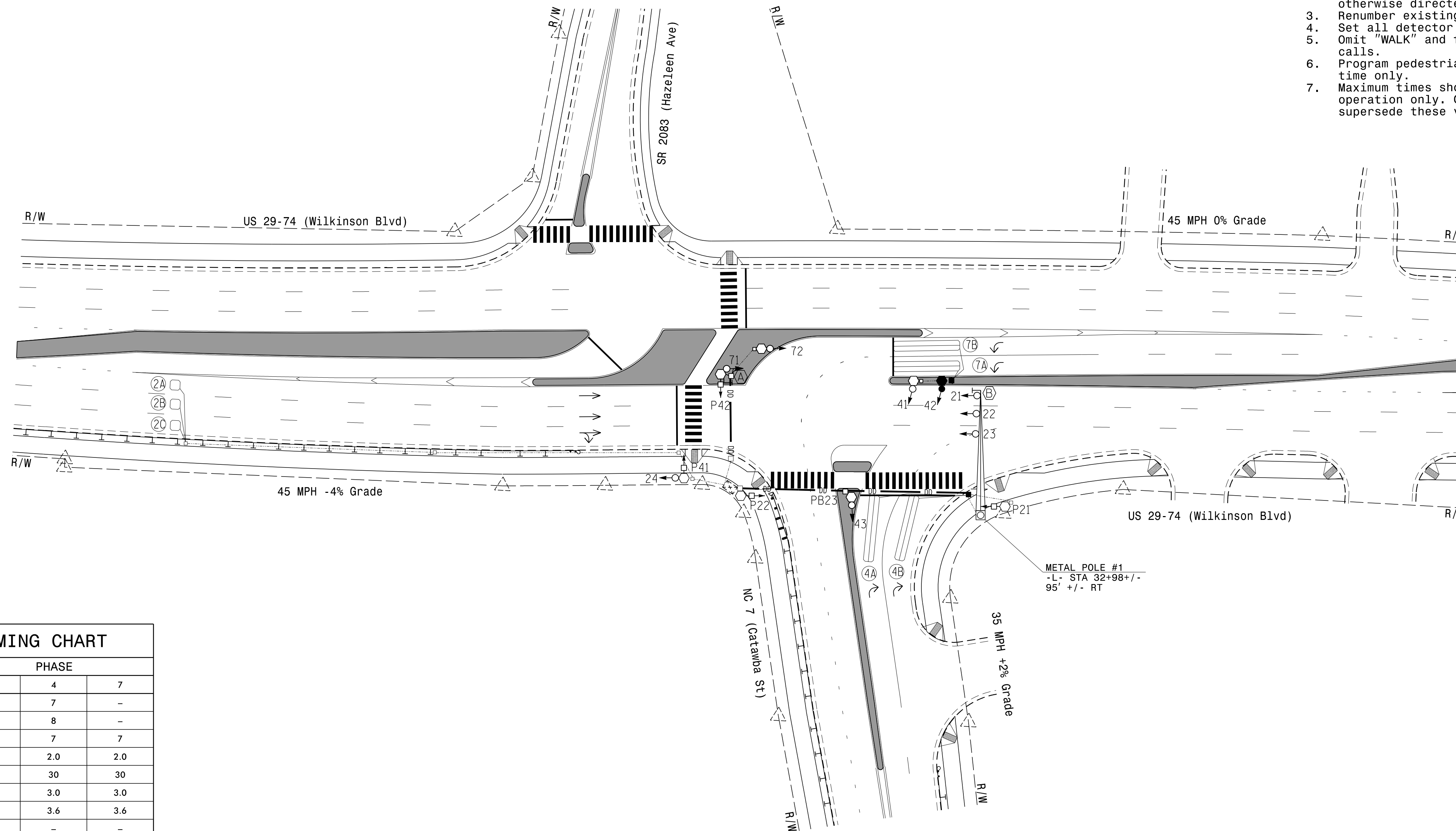


MAXTIME DETECTOR INSTALLATION CHART										
DETECTOR				PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL CALL	NEW CARD
2A	6X6	300	4	X	2	-	-	X	X	X
2B	6X6	300	4	X	2	-	-	X	X	X
2C	6X6	300	4	X	2	-	-	X	X	X
4A	6X40	0	2-4-2	X	4	15.0	-	X	-	X
4B	6X40	0	2-4-2	X	4	15.0	-	X	-	X
7A	6X40	0	2-4-2	X	7	-	-	X	-	X
7B	6X40	0	2-4-2	X	7	-	-	X	-	X

2 Phase Fully Actuated (Belmont Signal System)

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specification for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Renumber existing signal head 41 to 42.
- Set all detector units to presence mode.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



FEATURE	PHASE		
	2	4	7
Walk *	7	7	-
Ped Clear	41	8	-
Min Green *	12	7	7
Passage *	6.0	2.0	2.0
Max I *	90	30	30
Yellow Change	4.9	3.0	3.0
Red Clear	2.6	3.6	3.6
Added Initial *	1.0	-	-
Maximum Initial *	34	-	-
Time Before Reduction *	15	-	-
Time To Reduce *	30	-	-
Minimum Gap	3.0	-	-
Advance Walk	7	-	-
Non Lock Detector	-	X	X
Vehicle Recall	MIN RECALL	-	-
Dual Entry	-	X	X

\* These values may be field adjusted. Do not adjust Min Green and Extension times for phase 2 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	-
⊥ Sign	⊥
⊥ Pedestrian Signal Head With Push Button & Sign	⊥
○ Signal Pole with Guy	● Signal Pole with Guy
○ Signal Pole with Sidewalk Guy	● Signal Pole with Sidewalk Guy
⊠ Inductive Loop Detector	⊠
⊠ Controller & Cabinet	⊠
⊠ Junction Box	⊠
— 2-in Underground Conduit	—
N/A Right of Way	- - -
→ Directional Arrow	→
N/A Guardrail	-
○ Metal Pole with Mastarm	○
○ Type II Signal Pedestal	○
⊠ No U-Turn Sign (R3-4)	⊠
⊠ No Left Turn Sign (R3-2)	⊠
N/A Curb Ramp	⊠

Signal Upgrade - Final Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared for the Offices of:  
 Transportation Mobility and Safety Division  
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
 SIGNAL DESIGN SECTION

**US 29-74 (Wilkinson Blvd) at NC 7 (Catawba St)**

Division 12 Gaston County Belmont  
 PLAN DATE: August 2025 REVIEWED BY: DT Sears  
 PREPARED BY: WP Erickson-Jones REVIEWED BY:

REVISIONS	INIT.	DATE

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SCALE: 0 40  
1" = 40'

SIGNATURE: David T. Sears  
DATE: 8/1/2025  
SIG. INVENTORY NO.: 12-0997

8/1/2025 R:\Projects\6051\Signal\Signal\6051\_Signal\_L12-0997.dgn dsd