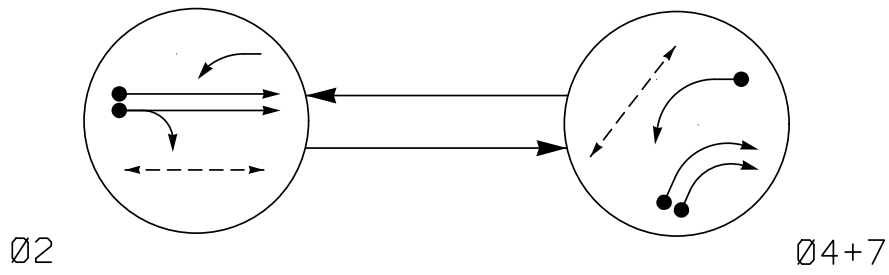


DEFAULT PHASING DIAGRAM



SIGNAL FACE	PHASE		
	Ø 2	Ø 4 + 7	FLASH
2l	↑	R	R
22	G	R	R
4l, 42, 43	R	→	R
7l, 72	←	←	←
P2l, P22	W	DW	DRK
P7l, P72	DW	W	DRK

SIGNAL FACE	PHASE		
	Ø 2	Ø 4 + 7	FLASH
2l	↑	R	R
22	G	R	R
4l, 42, 43	R	→	R
7l, 72	←	←	←
P2l, P22	W	DW	DRK
P7l, P72	DW	W	DRK

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	420	5	X	2	-	-	X	X	X	- X
2B	6X6	420	5	X	2	-	-	X	X	X	- X
4A	6X40	0	2-4-2	X	4	15.0	-	X	-	X	- X
4B	6X40	0	2-4-2	X	4	15.0	-	X	-	X	- X
7A	6X40	0	2-4-2	X	7	*15.0	-	X	-	X	- X

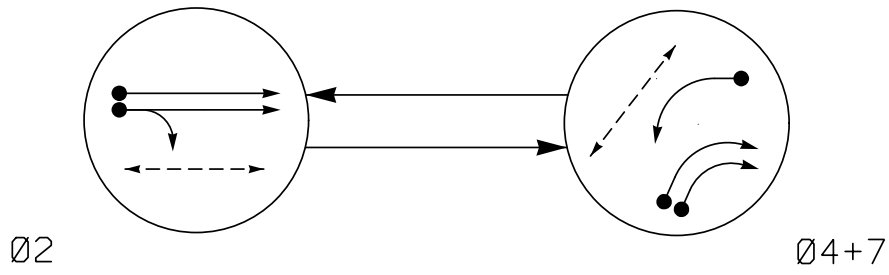
* Disable Delay During Alternate Phasing Operation.

2 Phase
Fully Actuated w/ Alternate Phasing Operation
US 321 Closed Loop System

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Set all detector units to presence mode.
4. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
5. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
6. The Division Traffic Engineer will determine the hours of use for each phasing plan.
7. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
8. Pedestal mounted signal heads shall be mounted a minimum of 8' above the high point of the roadway surface elevation.
9. Refer to the Roadway and/or Pavement Marking plans for stop bar locations.

ALTERNATE PHASING DIAGRAM

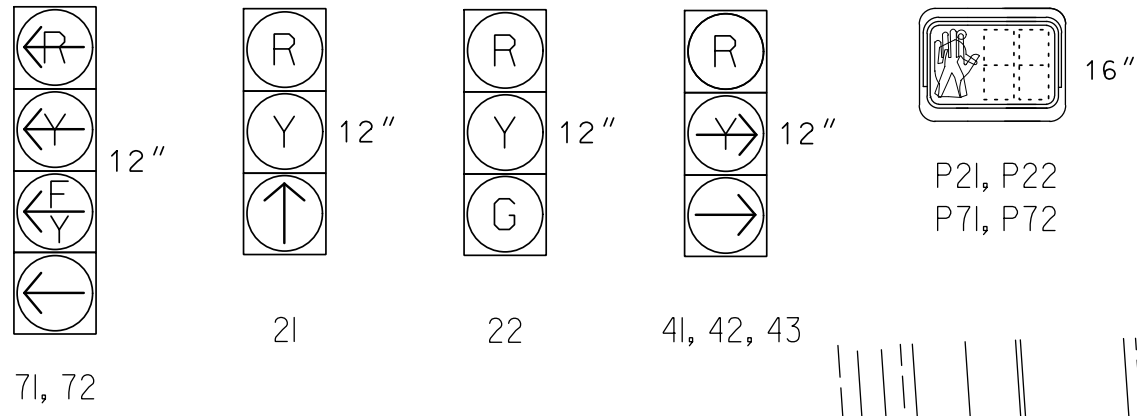


PHASING DIAGRAM DETECTION LEGEND

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

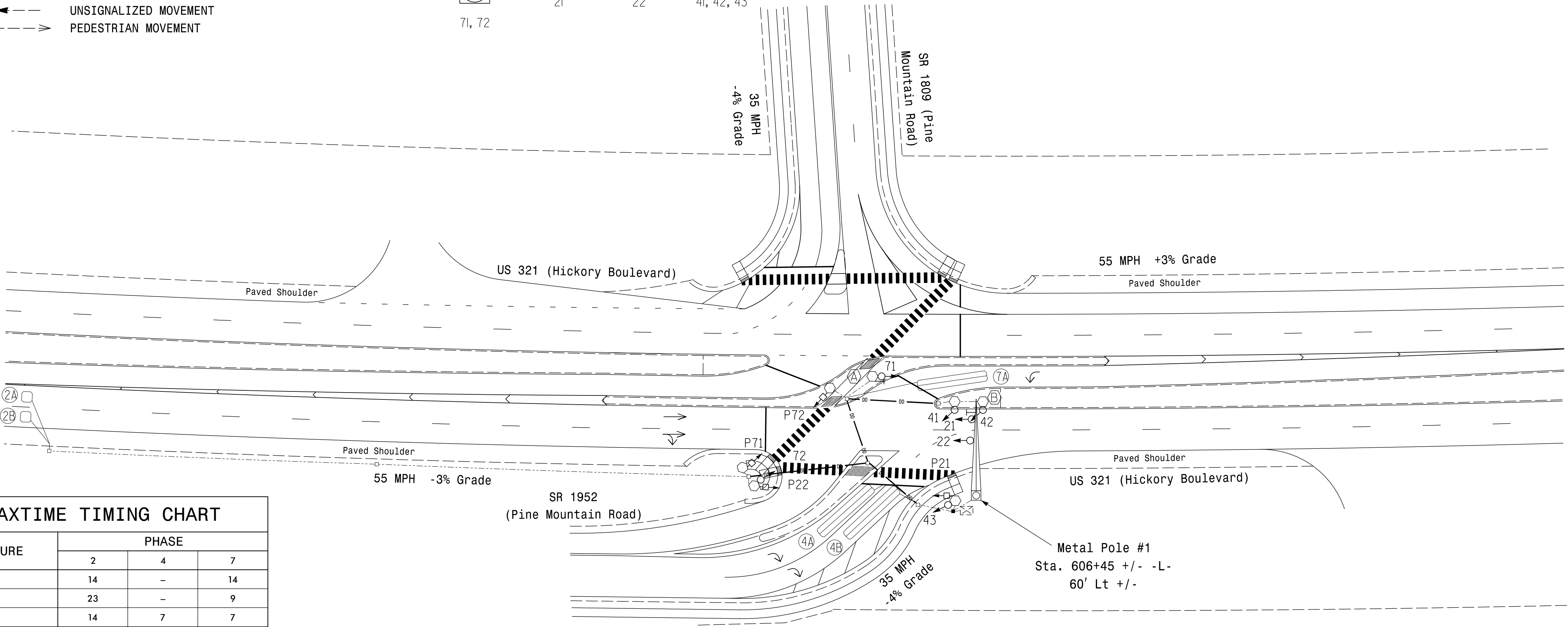
SIGNAL FACE I.D.

All Heads L.E.D.



MAXTIME TIMING CHART			
FEATURE	PHASE		
	2	4	7
Walk *	14	-	14
Ped Clear *	23	-	9
Min Green	14	7	7
Passage *	6.0	2.0	2.0
Max 1 *	90	20	30
Yellow Change	5.5	3.0	3.0
Red Clear	1.5	2.4	2.3
Added Initial *	1.5	-	-
Maximum Initial *	46	-	-
Time Before Reduction *	15	-	-
Time To Reduce *	30	-	-
Minimum Gap	3.4	-	-
Advance Walk	7	-	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.



LEGEND

PROPOSED	EXISTING
○ → Traffic Signal Head	● → N/A
● → Modified Signal Head	● → N/A
⊥ Sign	⊥ Sign
○ ⊥ Pedestrian Signal Head	● ⊥ Pedestrian Signal Head
○ ⊥ Signal Pole with Guy	● ⊥ Signal Pole with Sidewalk Guy
⊥ Inductive Loop Detector	⊥ Inductive Loop Detector
⊥ Controller & Cabinet	⊥ Controller & Cabinet
⊥ Junction Box	⊥ Junction Box
⊥ 2-in Underground Conduit	⊥ 2-in Underground Conduit
N/A Right of Way	N/A Right of Way
→ Directional Arrow	→ Directional Arrow
⊥ Metal Pole with Mastarm	⊥ Metal Pole with Mastarm
→ Directional Drill	N/A Directional Drill
○ Type II Signal Pedestal	● Type II Signal Pedestal
(A) No U-Turn Sign (R3-4)	(A) No U-Turn Sign (R3-4)
(B) No Left Turn Sign (R3-2)	(B) No Left Turn Sign (R3-2)

Signal Upgrade - Final Design

stv

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

750 N. Greenfield Pkwy, Garner, NC 27529

SCALE
0 40
1" = 40'

US 321 (Hickory Boulevard) SB
at
SR 1809/SR 1952
(Pine Mountain Road)

Division 11 Caldwell County Hudson

PLAN DATE: May 2026 REVIEWED BY: B. Roth-Roffy

PREPARED BY: R.L. Aristondo REVIEWED BY: T.M. Woody

REVISIONS
INIT. DATE

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL
NORTH CAROLINA
PROFESSIONAL ENGINEER
SEAL
040329
T.M. WOODY

DocuSign
5/29/2026
DATE
SIC. INVENTORY NO. 11-1449