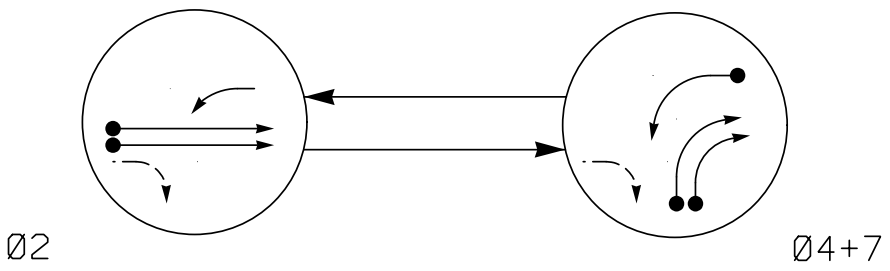
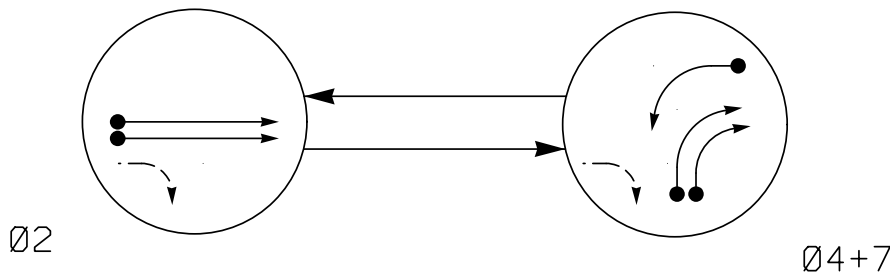


DEFAULT PHASING DIAGRAM



ALTERNATE PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

DEFAULT PHASING TABLE OF OPERATION

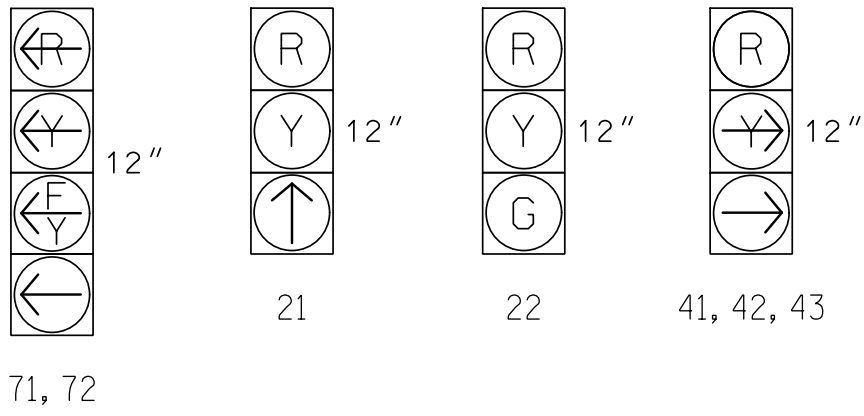
SIGNAL FACE	PHASE		
	02	04+7	FLASH
21	↑	R	Y
22	G	R	Y
41, 42, 43	R	→	R
71, 72	←	←	←

ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE		
	02	04+7	FLASH
21	↑	R	Y
22	G	R	Y
41, 42, 43	R	→	R
71, 72	←	←	←

SIGNAL FACE I.D.

All Heads L.E.D.



MAXTIME DETECTOR INSTALLATION CHART

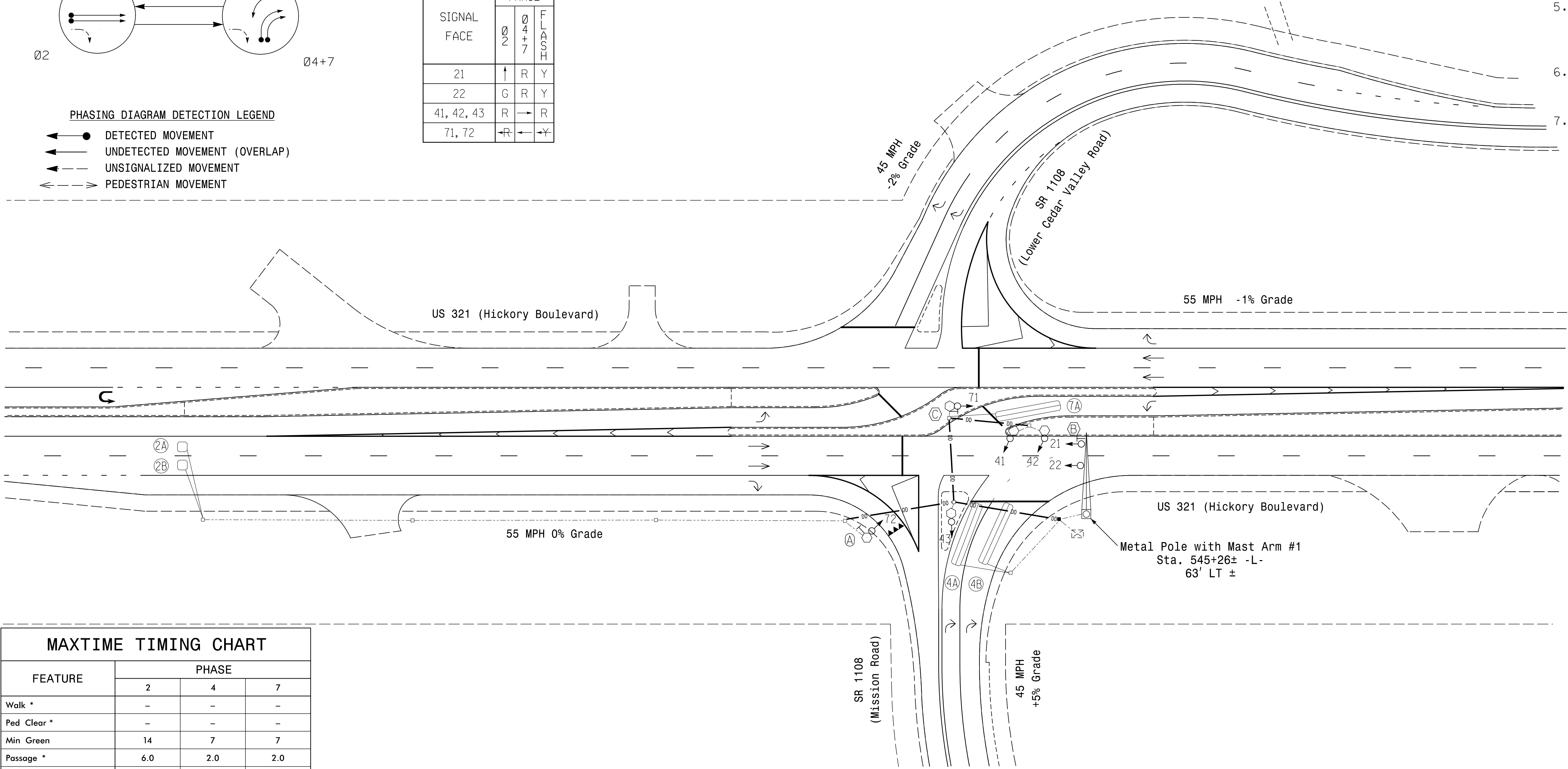
DETECTOR					PROGRAMMING					
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	URNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL
2A	6X6	420	5	X	2	-	-	X	X	X
2B	6X6	420	5	X	2	-	-	X	X	X
4A	6X40	0	2-4-2	X	4	15.0	-	X	-	X
4B	6X40	0	2-4-2	X	4	15.0	-	X	-	X
7A	6X40	0	2-4-2	X	7	*15.0	-	X	-	X

* Disable Delay During Alternate Phasing Operation.

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

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Set all detector units to presence mode.
- The Division Traffic Engineer 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 supersede these values.
- Pedestal mounted signal heads shall be mounted a minimum of 8' above the high point of the roadway surface elevation.
- Refer to Roadway and/or Pavement Marking plans for stop bar locations.



MAXTIME TIMING CHART

FEATURE	PHASE		
	2	4	7
Walk *	-	-	-
Ped Clear *	-	-	-
Min Green	14	7	7
Passage *	6.0	2.0	2.0
Max l *	90	20	30
Yellow Change	5.2	3.0	3.0
Red Clear	1.4	2.6	1.8
Added Initial *	1.5	-	-
Maximum Initial *	46	-	-
Time Before Reduction *	15	-	-
Time To Reduce *	30	-	-
Minimum Gap	3.4	-	-
Advance Walk	-	-	-
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 be lower than 4 seconds.

LEGEND

PROPOSED	EXISTING
Traffic Signal Head	N/A
Modified Signal Head	N/A
Pedestrian Signal Head	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
Right of Way	N/A
Directional Arrow	N/A
Metal Pole with Mastarm	N/A
Directional Drill	N/A
Type II Signal Pedestal	N/A
Yield Bars	N/A
"YIELD" Sign (R1-2)	N/A
No Left Turn Sign (R3-2)	N/A
No U-Turn Sign (R3-4)	N/A

Signal Upgrade - Final Design

stv
STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
(704) 372-1885
NC License Number F-0991

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

US 321 (Hickory Boulevard) SB
at
SR 1108 (Mission Road) /
SR 1108 (Lower Cedar Valley Rd)
Division 11 Caldwell County Hudson
PLAN DATE: Sept 2023 REVIEWED BY: D.J. Darity
PREPARED BY: J.T. Grimm REVIEWED BY: T.M. Woody

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL
NORTH CAROLINA
PROFESSIONAL
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19713
ENGINEER
DONALD J. DARTY

DocuSigned by:
Donald J. Darity 10/18/2023
DATE
SIGNATURE
SIC. INVENTORY NO. 11-1452