PROJECT REFERENCE NO.	SHEET NO.
U-4709	Sig. 5.0

5 Phase Fully Actuated System #D06-03_Hope Mills

PHASING DIAGRAM

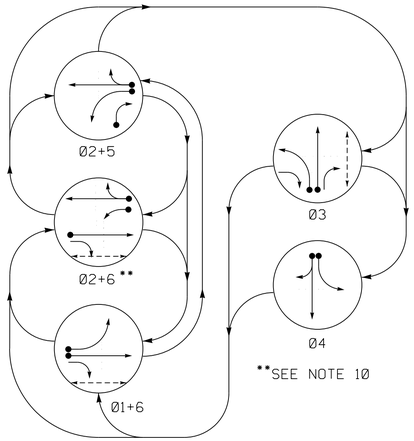


TABLE OF OPERATION

SIGNAL FACE	PHASE Ø1+6	Ø2+6	Ø2+5	Ø3	Ø4	FLASH
11	←-	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
21,22	R	G	G	R	R	Y
31	R	R	R	G	R	R
32	R	R	R	G	R	R
33	R	R	R/G	G	R	R
41	R	R	R	R	G	R
42	R	R	R	R	G	R
51	~~R~~	~~F Y~~	←-	~~R~~	~~R~~	~~Y~~
61	G	G	R	R	R	Y
62	G	G	R	R/G	R	Y
P31,P32	DW	DW	DW	W	DW	DRK
P61,P62	W	W	DW	DW	DW	DRK

MAXTIME DETECTOR INSTALLATION CHART

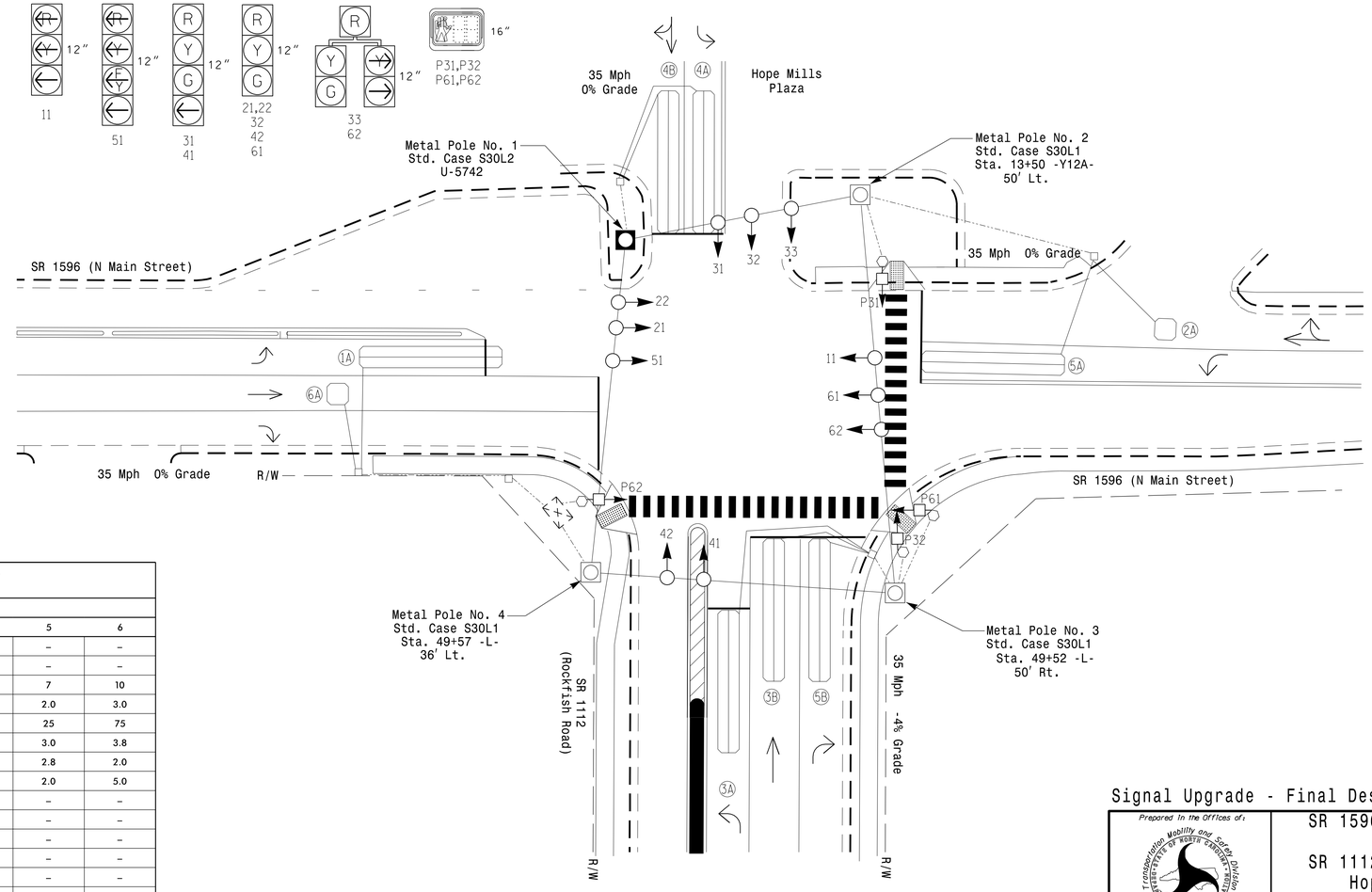
DETECTOR LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN	NEW CARD
1A	6X40	+5	2-4-2	X	1	-	-	X	-	X	-	-
2A	6X6	70	4	X	2	-	-	X	-	X	-	-
3A	6X40	0	2-4-2	X	3	-	-	X	-	X	-	-
3B	6X40	0	2-4-2	X	3	-	-	X	-	X	-	-
4A	6X40	0	2-4-2	X	4	3	-	X	-	X	-	X
4B	6X40	0	2-4-2	X	4	10	-	X	-	X	-	-
5A	6X40	0	2-4-2	X	5	15	-	X	-	X	-	-
					2	-	-	X	-	X	-	-
5B	6X40	0	2-4-2	X	5	15	-	X	-	X	-	X
6A	6X6	70	4	X	6	-	-	X	-	X	-	-

SIGNAL FACE I.D.

All Heads L.E.D.

PHASING DIAGRAM DETECTION LEGEND

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



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. Enable backup protect to allow the controller to clear from phase 2+6 to 1+6 by progressing through an all red display.
4. Phase 1 must lead, Phase 5 must lag, and Phase 1 and Phase 5 shall not operate simultaneously.
5. The order of phase 3 and phase 4 may be reversed.
6. Remove signal head P41 and pedestal.
7. Set all detector units to presence mode.
8. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
9. This intersection uses video detection. Install detectors according to manufacturer's instructions to achieve the desired detection.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
10. See logic programming. This ensures phases 2+6 run a minimum of 7 seconds.

LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
	Type II Signal Pedestal	
	Metal Strain Pole	

MAXTIME TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6
Walk *	–	–	–	–	–	–
Ped Clear	–	–	–	–	–	–
Min Green *	7	10	7	7	7	10
Passage *	2.0	3.0	2.0	2.0	2.0	3.0
Max 1 *	30	75	20	25	25	75
Yellow Change	3.0	3.8	4.1	3.8	3.0	3.8
Red Clear	2.6	1.5	1.7	1.6	2.8	2.0
Red Revert	2.0	2.0	2.0	2.0	2.0	5.0
Added Initial *	–	–	–	–	–	–
Maximum Initial *	–	–	–	–	–	–
Time Before Reduction *	–	–	–	–	–	–
Time To Reduce *	–	–	–	–	–	–
Minimum Gap	–	–	–	–	–	–
Advance Walk	–	–	–	–	–	–
Non Lock Detector	X	–	X	X	X	–
Vehicle Recall	–	MIN RECALL	–	–	–	MIN RECALL
Dual Entry	–	–	–	–	–	–

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

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License: F-0453

Signal Upgrade - Final Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared In the Offices of:
Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

SCALE 0 20 1"=20'

SR 1596 (N Main Street) at SR 1112 (Rockfish Road) / Hope Mills Plaza

Division 6 Cumberland County Hope Mills

PLAN DATE: March 2024 REVIEWED BY: G.G. Murr, Jr.
PREPARED BY: B.E. Wynn REVIEWED BY:

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 14543 ENGINEER GENE G. MURR, JR.
DocuSigned by: Gene G. Murr Jr. 3/15/2024
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DATE
SIG. INVENTORY NO. 06-0363

3/15/2024
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