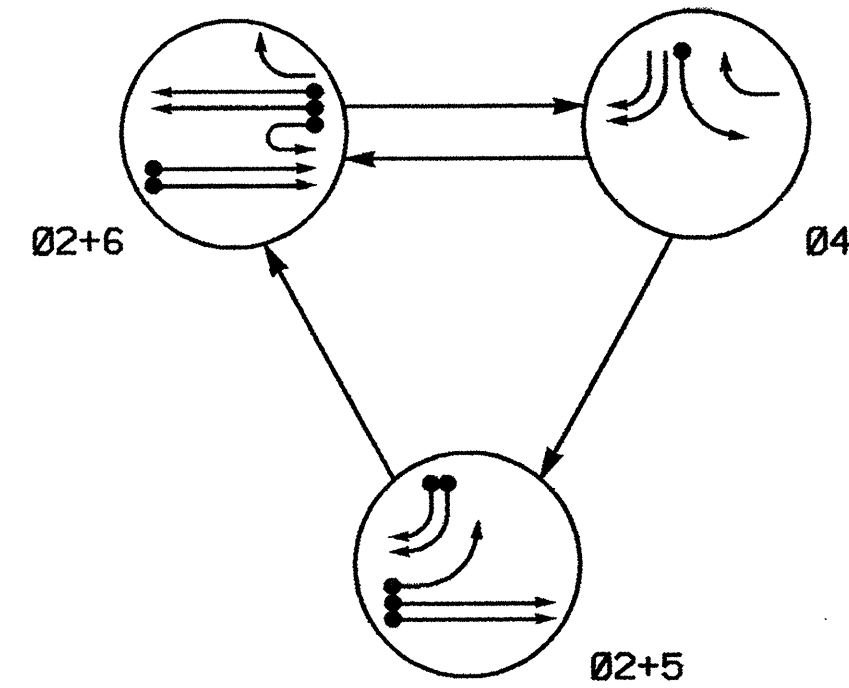


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

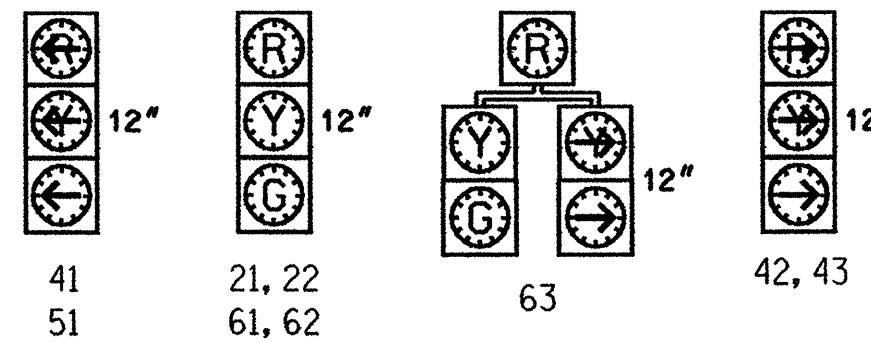
- DETECTED MOVEMENT
- ◌ UNDETECTED MOVEMENT (OVERLAP)
- - - UNSIGNALIZED MOVEMENT
- ◌ PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE			
	Ø 2+5	Ø 2+6	Ø 4	PEDESTRIAN
21, 22	G	G	R	Y
41	→	→	→	→
42, 43	→	→	→	→
51	→	→	→	→
61, 62	R	G	R	Y
63	R	G	R	Y

SIGNAL FACE I.D.

○ Denotes L.E.D.



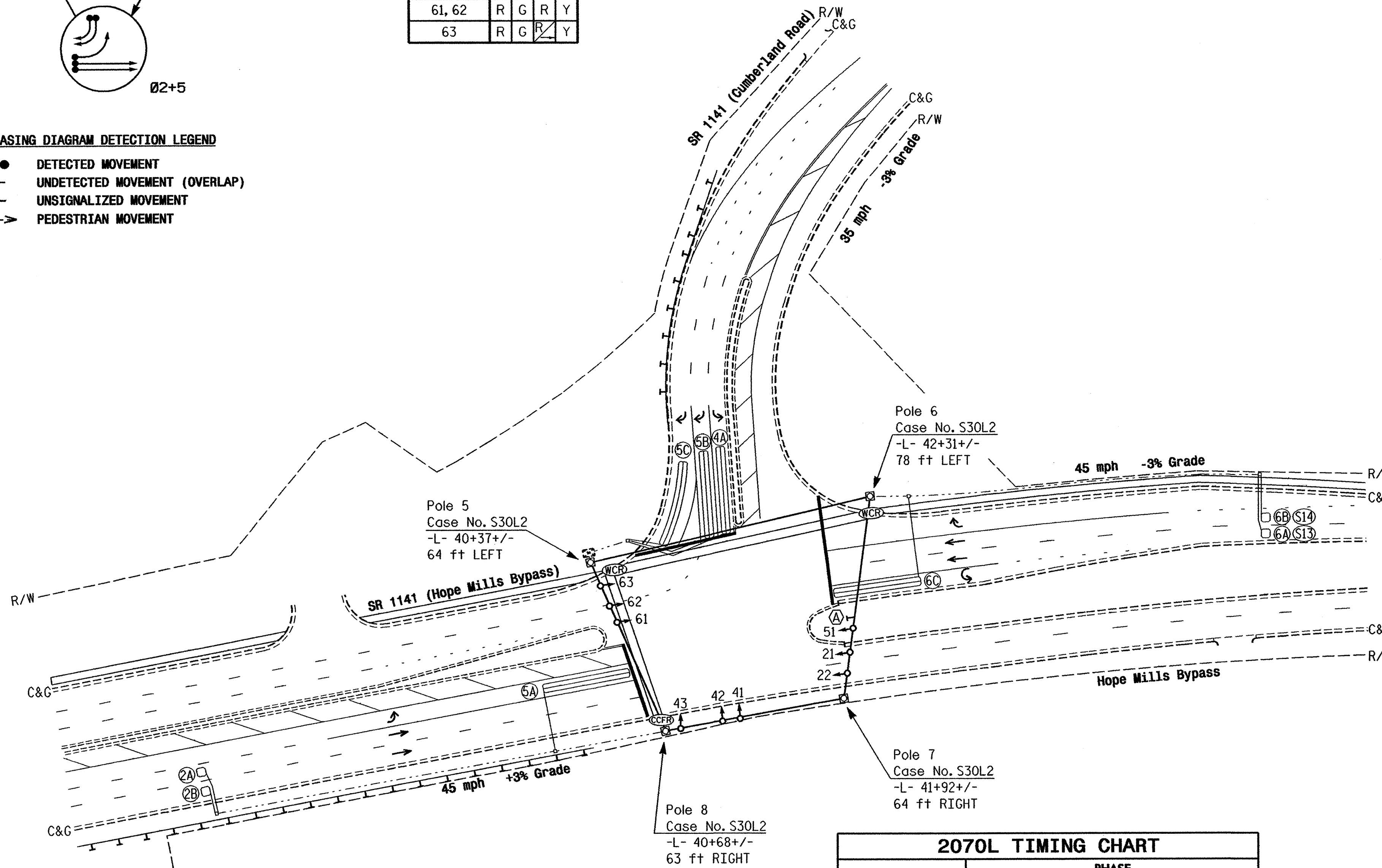
PLAN QUANTITIES

Pay Item	Feet
Signal Cable	1340
Messenger Cable	640
Lead-in Cable	1880

3 Phase Fully Actuated (Hope Mills Bypass Closed Loop System)

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2002 and "Standard Specifications for Roads and Structures" dated January 2002.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
- Omit phase 5 during phase 6 on
- Program controller to clear from phase 2+6 to phase 2+5 by progressing through phase 4 (see Electrical Details).
- Set all detector units to presence mode.
- Closed loop system data: Controller Asset #1254.



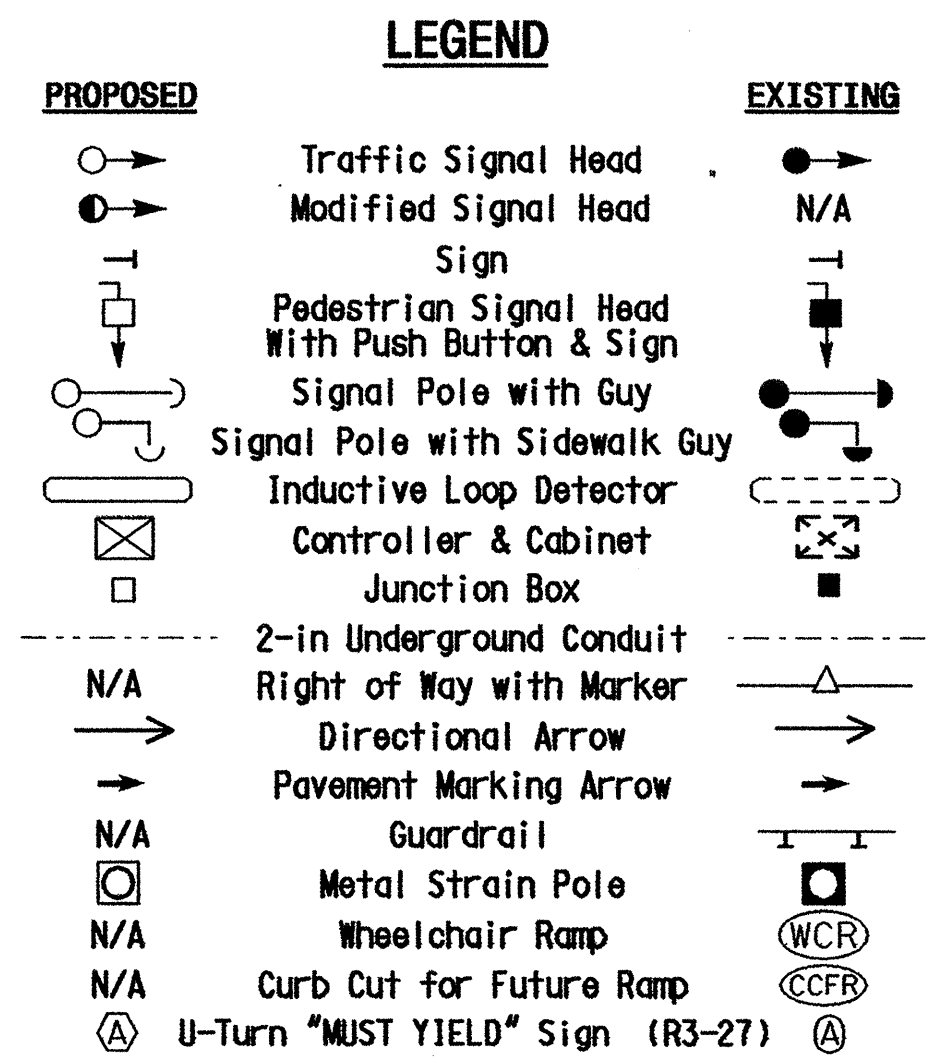
2070L LOOP & DETECTOR INSTALLATION

LOOP	SIZE (FT)	TURNS	DISTANCE FROM STOPBAR (FT)	INDUCTIVE LOOPS		DETECTOR PROGRAMMING								
				NEW	LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	SYSTEM LOOP	STRETCH TIME	DELAY TIME	NEW CARD	
2A	6x6	5	300	Y	2	Y	Y	-	-	-	-	-	-	-
2B	6x6	5	300	Y	2	Y	Y	-	-	-	-	-	-	Y
4A	6x60	2-4-2	0	Y	4	Y	Y	-	-	-	-	-	-	-
5A	6x60	2-4-2	0	Y	5	Y	Y	-	-	-	-	-	-	-
5B	6x60	2-4-2	0	Y	5	Y	Y	-	-	-	-	15	-	-
5C	6x60	2-4-2	0	Y	5	Y	Y	-	-	-	-	15	-	-
6A/S13	6x6	5	300	Y	6	Y	Y	-	Y	-	-	-	-	Y
6B/S14	6x6	5	300	Y	6	Y	Y	-	Y	-	-	-	-	Y
6C	6x60	2-4-2	0	Y	6	Y	Y	-	-	-	-	-	3	Y

2070L TIMING CHART

FEATURE	PHASE			
	2	4	5	6
Min Green 1 *	12	7	7	12
Extension 1 *	6.0	1.0	1.0	6.0
Max Green 1 *	90	30	20	90
Yellow Clearance	4.7	4.0	4.0	4.7
Red Clearance	2.5	3.0	3.0	2.5
Walk 1 *	-	-	-	-
Don't Walk 1	-	-	-	-
Seconds Per Actuation *	1.5	-	-	1.5
Max Variable Initial *	34	-	-	34
Time Before Reduction *	15	-	-	15
Time To Reduction *	30	-	-	30
Minimum Gap	3.0	-	-	3.0
Recall Mode	MIN RECALL	-	-	MIN RECALL
Vehicle Call Memory	YELLOW	-	-	YELLOW
Dual Entry	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON

* 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.



Signal Upgrade: Final Design

	Hope Mills Bypass at SR 1141 (Cumberland Road)		
	Division 6 Cumberland County Hope Mills		
	PLAN DATE: May 2003	REVIEWED BY: L.A. Elliott	
	PREPARED BY: P.J. Porter	REVIEWED BY: STF/JPG	
SCALE: 1"=50'		REVISIONS:	INIT. DATE:
SIGNATURE: <i>P.J. Porter</i>		DATE: 10/22/03	SIG. INVENTORY NO. 06-1254