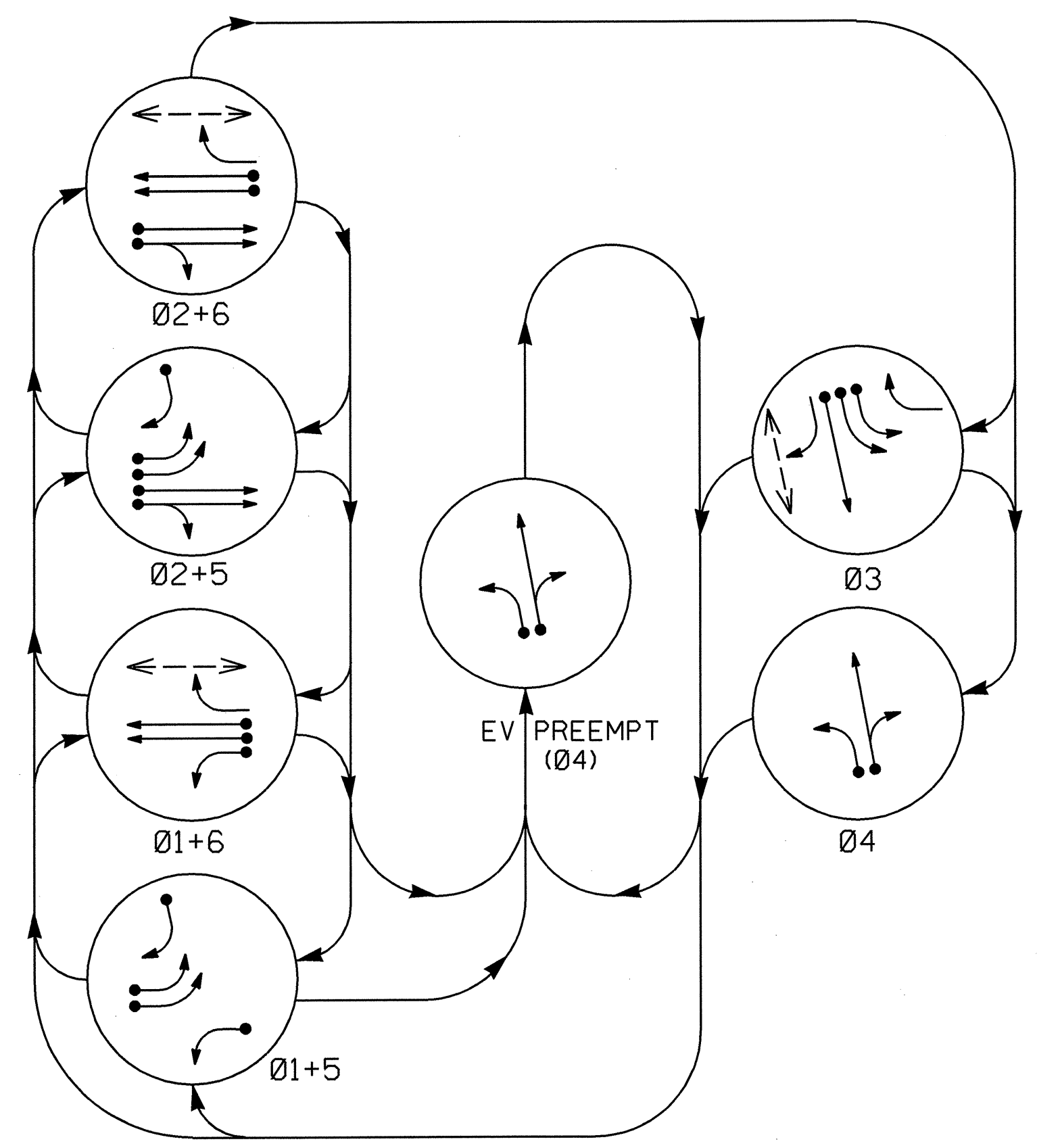


PHASING DIAGRAM

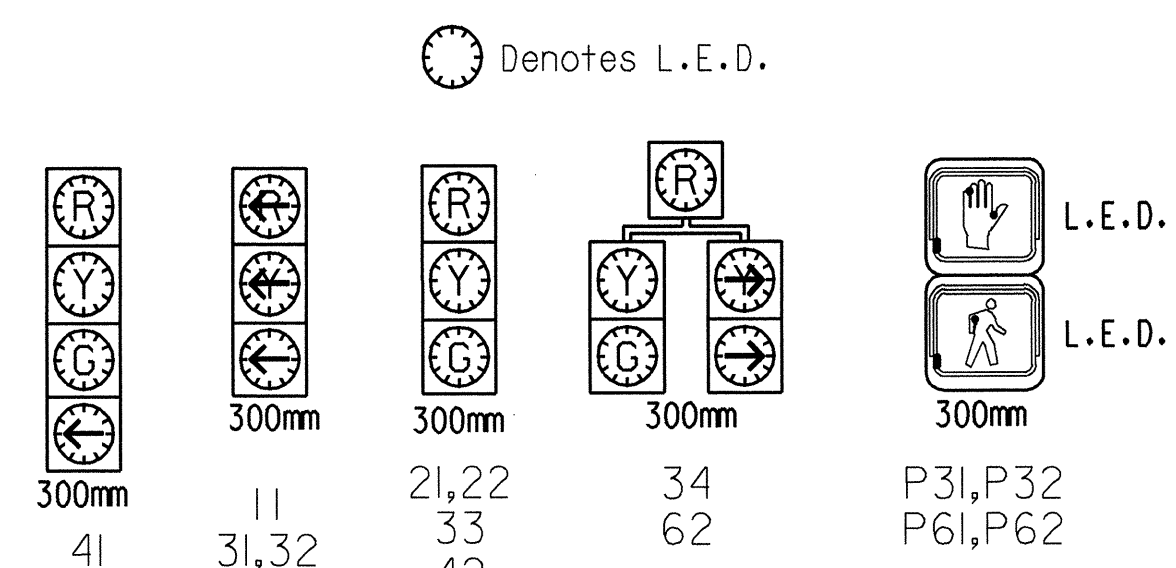


PHASING DIAGRAM DETECTION LEGEND
 ● DETECTED MOVEMENT
 ○ UNDETECTED MOVEMENT (OVERLAP)
 - UNSIGNALIZED MOVEMENT
 - PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE					
	01+5	01+6	02+5	02+6	03	04
11	←	←	←	←	←	←
21,22	R	R	G	G	R	R
31,32	R	R	R	R	←	←
33	R	R	R	R	G	R
34	R	R	R	R	G	R
41	R	R	R	R	G	R
42	R	R	R	R	G	R
51,52	←	←	←	←	←	←
61	R	G	R	G	R	R
62	R	G	R	G	R	R
P31,P32	DW	DW	DW	DW	W	DRK
P61,P62	DW	W	DW	W	DW	DRK

SIGNAL FACE I.D.



2070L LOOP & DETECTOR INSTALLATION

LOOP	SIZE (M)	TURNS	DISTANCE FROM STOPBAR (M)	NEW LOOP	DETECTOR PROGRAMMING							
					PHASE	CALLING	EXTENSION	FULL TIME DELAY	SYSTEM LOOP	STRETCH TIME	DELAY TIME	NEW CARD
1A	1.8X1.8	2-4-2	0	Y	1	Y	Y	-	-	-	3	Y
2A	1.8X1.8	5	90	Y	2	Y	Y	-	-	-	-	-
2B	1.8X1.8	5	90	Y	2	Y	Y	-	-	-	-	-
3A	1.8X1.8	2-4-2	0	Y	3	Y	Y	-	-	-	3	-
3B	1.8X1.8	2-4-2	0	Y	3	Y	Y	-	-	-	-	-
3C	1.8X1.8	2-4-2	0	Y	3	Y	Y	-	-	-	-	Y
4A	1.8X1.8	2-4-2	0	Y	4	Y	Y	-	-	-	3	-
4B	1.8X1.8	2-4-2	0	Y	4	Y	Y	-	-	-	10	Y
5A	1.8X1.8	2-4-2	0	Y	5	Y	Y	-	-	-	3	-
5B	1.8X1.8	2-4-2	0	Y	5	Y	Y	-	-	-	-	-
5C	1.8X1.8	2-4-2	0	Y	5	Y	Y	-	-	-	15	-
6A	1.8X1.8	5	90	Y	6	Y	Y	-	-	-	-	-
6B	1.8X1.8	5	90	Y	6	Y	Y	-	-	-	-	-
S21	1.8X1.8	4	+50	Y	-	-	-	-	Y	-	-	Y
S22	1.8X1.8	4	+50	Y	-	-	-	-	Y	-	-	Y

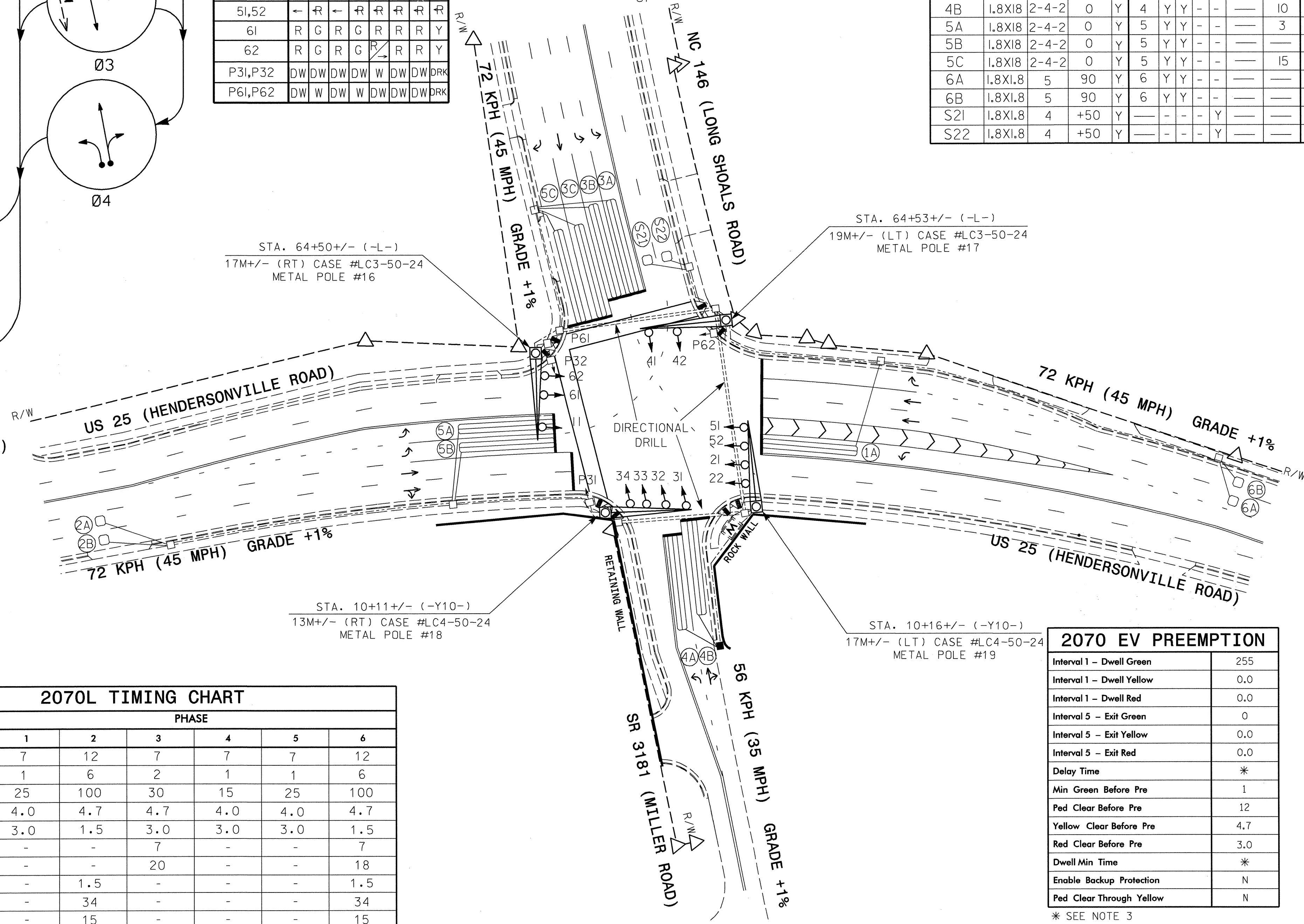
6 Phase Fully Actuated
 With EV Preempt
 (Closed Loop Signal System)

NOTES

- REFER TO "ROADWAY STANDARD DRAWINGS NCDOT" - DATED JANUARY 2002 AND "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2002.
- LOCATE EMERGENCY VEHICLE PREEMPTION SWITCH IN THE FIRE STATION.
- THE DIVISION TRAFFIC ENGINEER WILL DETERMINE THE DELAY BEFORE PREEMPT AND PREEMPT DWELL MIN GREEN TIME FOR THE EMERGENCY VEHICLE PREEMPTION TIMING.
- MAXIMUM TIMES SHOWN IN TIMING CHART ARE FOR FREE-RUN OPERATIONS ONLY. COORDINATED SIGNAL SYSTEM TIMING VALUES SHALL SUPERSEDE THESE VALUES.
- DURING COORDINATION, THE ORDER OF PHASE 3 AND PHASE 4 MAY BE REVERSED.
- OMIT "WALK" AND FLASHING "DON'T WALK" WITH NO PEDESTRIAN CALLS.
- SET ALL DETECTOR UNITS TO PRESENCE MODE.
- CLOSED LOOP SYSTEM DATA:
 MASTER ASSET # 11304, INTERSECTION CONTROLLER ASSET # 0284

PLAN QUANTITIES

Pay Item	Meters
Signal Cable	140
Messenger Cable	-
Lead-in Cable	1230



2070L TIMING CHART

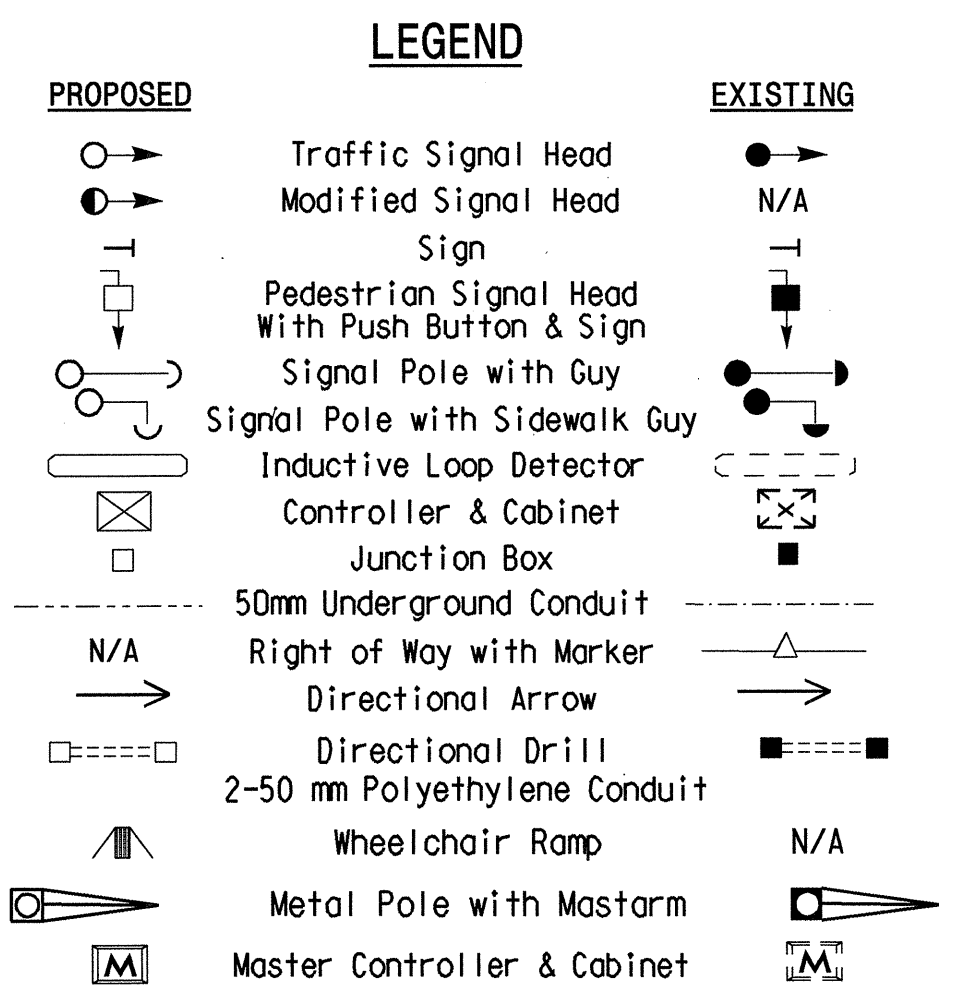
FEATURE	PHASE					
	1	2	3	4	5	6
Min Green 1*	7	12	7	7	7	12
Extension 1*	1	6	2	1	1	6
Max Green 1*	25	100	30	15	25	100
Yellow Clearance	4.0	4.7	4.7	4.0	4.0	4.7
Red Clearance	3.0	1.5	3.0	3.0	3.0	1.5
Walk 1*	-	-	7	-	-	7
Don't Walk 1	-	-	20	-	-	18
Seconds Per Actuation*	-	1.5	-	-	-	1.5
Max Variable Initial*	-	34	-	-	-	34
Time Before Reduction*	-	15	-	-	-	15
Time To Reduce*	-	50	-	-	-	50
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	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.

2070 EV PREEMPTION

Interval 1 - Dwell Green	255
Interval 1 - Dwell Yellow	0.0
Interval 1 - Dwell Red	0.0
Interval 5 - Exit Green	0
Interval 5 - Exit Yellow	0.0
Interval 5 - Exit Red	0.0
Delay Time	*
Min Green Before Pre	1
Ped Clear Before Pre	12
Yellow Clear Before Pre	4.7
Red Clear Before Pre	3.0
Dwell Min Time	*
Enable Backup Protection	N
Ped Clear Through Yellow	N

* SEE NOTE 3



PLANS PREPARED BY :
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FOR
DIVISION OF HIGHWAYS

Prepared for the Offices of:
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 Signal and Geometric Section

**US 25 (HENDERSONVILLE ROAD)
 AT
 NC 146 (LONG SHOALS ROAD)**

DIVISION 13 BUNCOMBE COUNTY ASHEVILLE
 PLAN DATE: 02-09-04 REVIEWED BY: D. WORTON
 PREPARED BY: J. COLE R&K PROJECT NO. 302-079-SIG4

REVISIONS: _____ DATE: _____
 INIT: _____ DATE: _____

SCALE: 1" = 500'

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 19798
 DONALD W. MORTON
 SIGNATURE: _____ DATE: 2-26-04
 SIG. INVENTORY NO. 13-0284