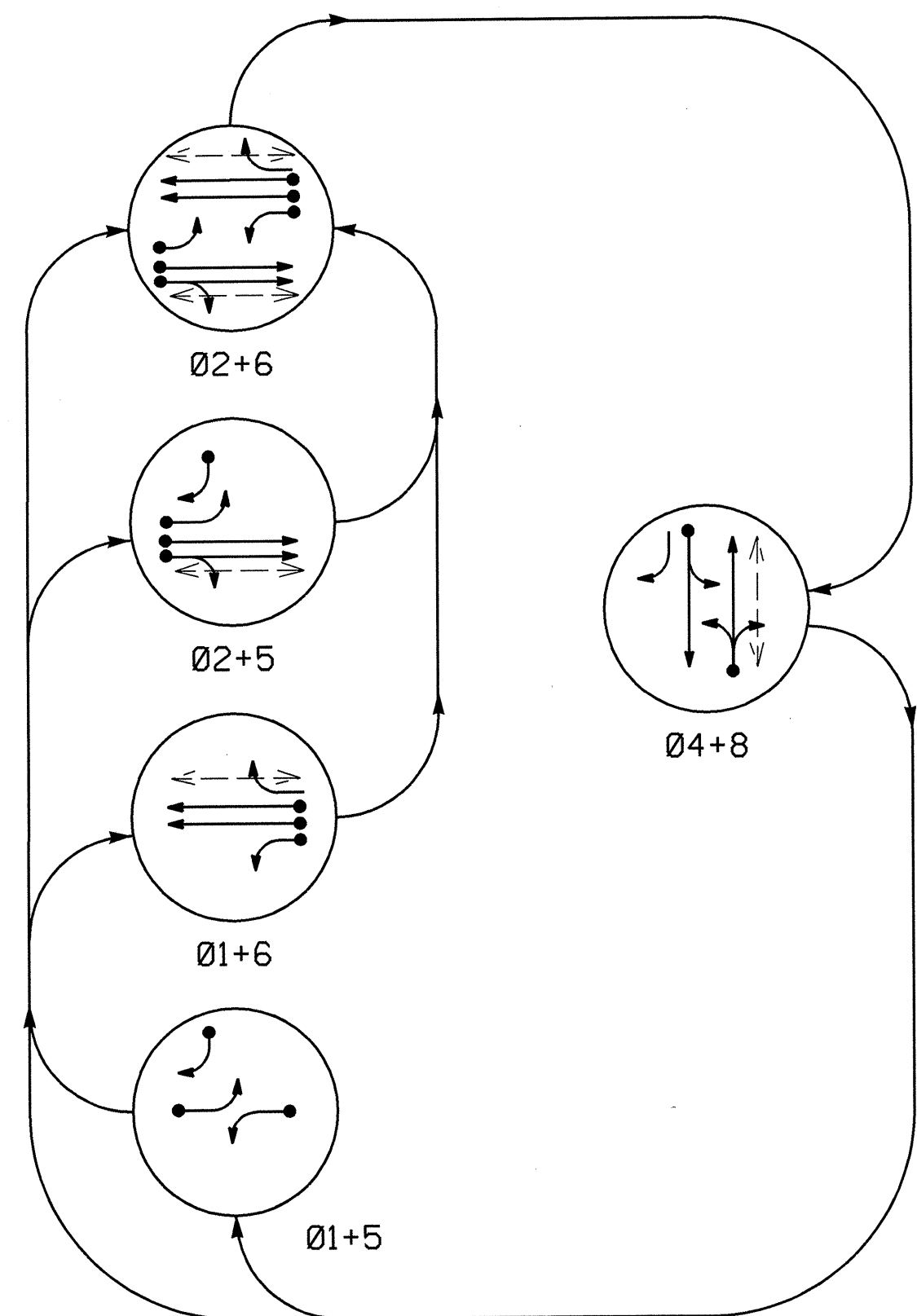
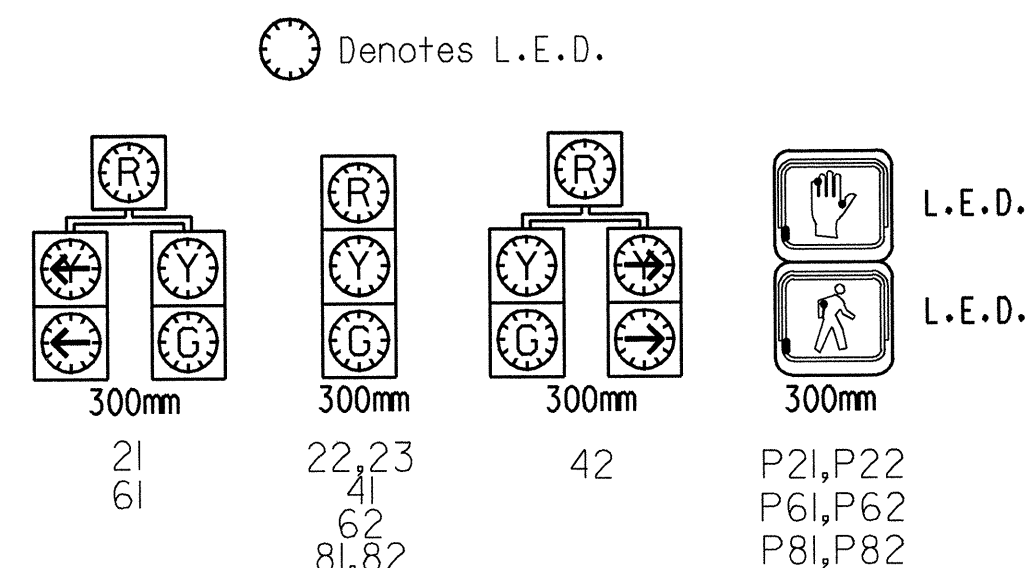


PHASING DIAGRAM



SIGNAL FACE	PHASE					FLIGHT
	01+5	01+6	02+5	02+6	04+8	
21	R	R	G	G	R	Y
22,23	R	R	G	G	R	Y
41	R	R	R	R	G	R
42	R	R	R	R	G	R
61	R	G	R	G	R	Y
62	R	G	R	G	R	Y
81,82	R	R	R	R	G	R
P21,P22	DW	DW	W	W	DW	DRK
P61,P62	DW	W	DW	W	DW	DRK
P81,P82	DW	DW	DW	W	DRK	

SIGNAL FACE I.D.



2070L LOOP & DETECTOR INSTALLATION											
INDUCTIVE LOOPS				DETECTOR PROGRAMMING							
LOOP	SIZE (M)	TURNS	DISTANCE FROM STOPBAR (M)	PHASE	CALLING	EXTENSION	FULL TIME DELAY	SYSTEM LOOP	STRETCH TIME	DELAY TIME	NEW CARD
1A	1.8X1.8	2-4-2	0	Y	6	Y	Y	Y	-	3	Y
2A	1.8X1.8	5	90	Y	2	Y	Y	-	-	15	Y
2B	1.8X1.8	5	90	Y	2	Y	Y	-	-	-	-
4A	1.8X1.8	2-4-2	0	Y	4	Y	Y	-	-	-	-
5A	1.8X1.8	2-4-2	0	Y	2	Y	Y	Y	-	3	Y
5B	1.8X1.8	2-4-2	0	Y	5	Y	Y	-	-	10	-
6A	1.8X1.8	4	90	Y	6	Y	Y	-	-	-	-
6B	1.8X1.8	4	90	Y	6	Y	Y	-	-	-	-
8A	1.8X1.8	2-4-2	0	Y	8	Y	Y	-	-	3	-
S5	1.8X1.8	4	+35	Y	-	-	-	Y	-	-	Y
S6	1.8X1.8	4	+35	Y	-	-	-	Y	-	-	Y
S7	1.8X1.8	4	+40	Y	-	-	-	Y	-	-	Y
S8	1.8X1.8	4	+40	Y	-	-	-	Y	-	-	Y

5 Phase Fully Actuated (Closed Loop Signal System)

NOTES

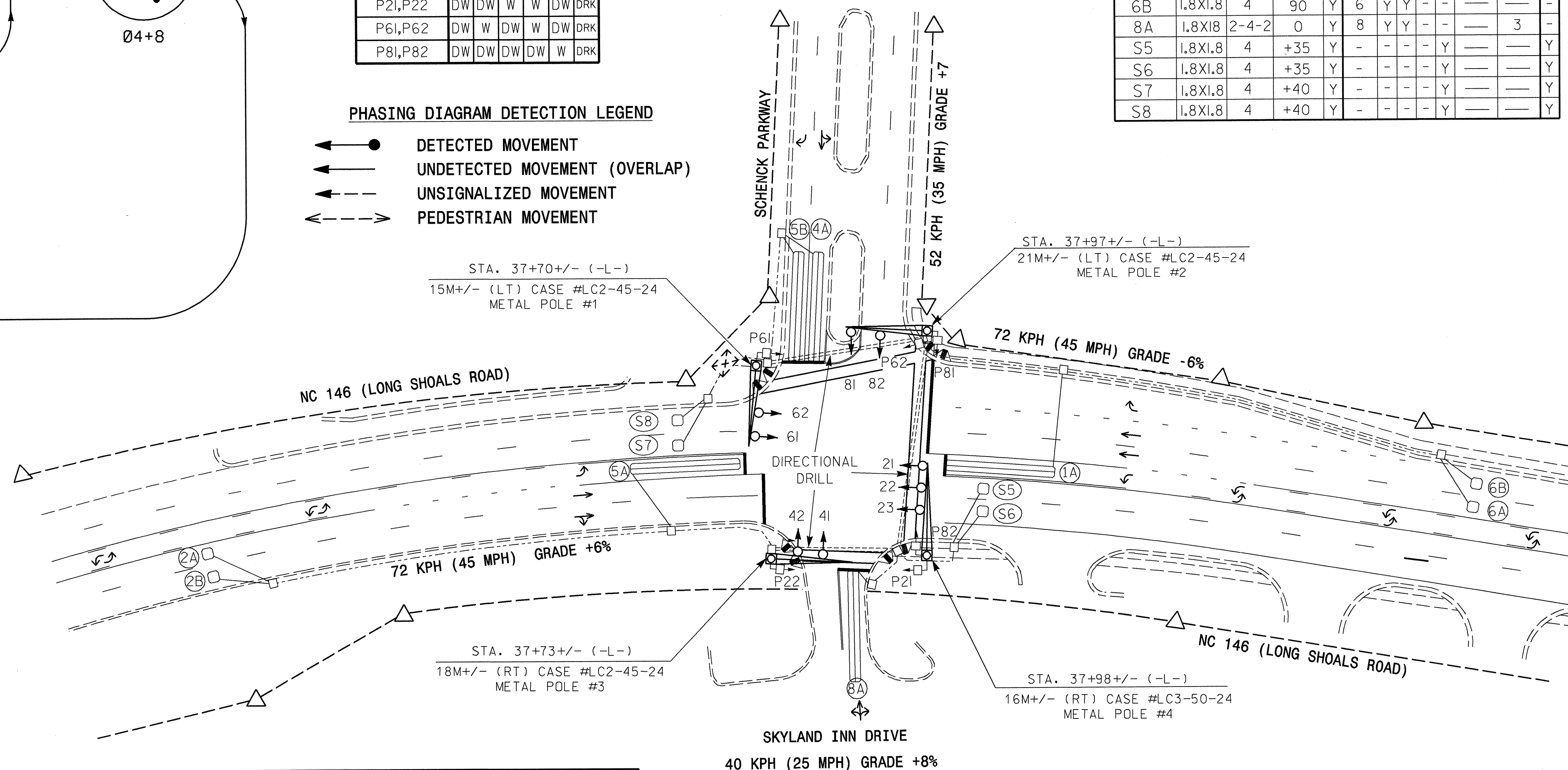
- REFER TO "ROADWAY STANDARD DRAWINGS NCDOT", DATED JANUARY 2002 AND "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2002.
- OMIT PHASE 1 DURING PHASE 2 ON.
- OMIT PHASE 5 DURING PHASE 6 ON.
- PROGRAM CONTROLLER TO CLEAR FROM PHASE 2+6 TO PHASE 1 AND/OR 5 BY PROGRESSING THROUGH PHASE 4+8 (SEE ELECTRICAL DETAILS).
- MAXIMUM TIMES SHOWN IN TIMING CHART ARE FOR FREE-RUN OPERATIONS ONLY. COORDINATED SIGNAL SYSTEM TIMING VALUES SHALL SUPERSEDE THESE VALUES.
- OMIT "WALK" AND FLASHING "DON'T WALK" WITH NO PEDESTRIAN CALLS.
- SET ALL DETECTOR UNITS TO PRESENCE MODE.
- CLOSED LOOP SYSTEM DATA: INTERSECTION CONTROLLER ASSET # 1126

PHASING DIAGRAM DETECTION LEGEND

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

PLAN QUANTITIES

Pay Item	Meters
Signal Cable	225
Messenger Cable	-
Lead-in Cable	840



LEGEND

- | PROPOSED | EXISTING |
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2070L TIMING CHART

FEATURE	PHASE					
	1	2	4	5	6	8
Min Green 1 *	7	12	7	7	12	7
Extension 1 *	1	6	2	1	6	2
Max Green 1 *	20	100	30	20	100	30
Yellow Clearance	4.0	5.1	4.0	4.0	5.1	4.0
Red Clearance	2.5	2.0	2.0	2.5	2.0	2.0
Walk 1 *	-	7	-	-	7	7
Don't Walk 1	-	8	-	-	14	15
Seconds Per Actuation *	-	1.5	-	-	1.5	-
Max Variable Initial *	-	34	-	-	34	-
Time Before Reduction *	-	20	-	-	20	-
Time To Reduce *	-	60	-	-	60	-
Minimum Gap	-	3.0	-	-	3.0	-
Recall Mode	-	MIN RECALL	-	-	MIN RECALL	-
Vehicle Call Memory	-	YELLOW	-	-	YELLOW	-
Dual Entry	-	-	ON	-	-	ON
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 4 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

SIGNAL UPGRADE - FINAL

 PLANS PREPARED BY : RUMMEL KLEPPER & KAHL, LLP <i>consulting engineers</i> 5800 FARINGDON PLACE SUITE 105 RALEIGH, NORTH CAROLINA 27609-3960 FOR DIVISION OF HIGHWAYS	Prepared for the Offices of: 122 N. McDowell St., Raleigh, NC 27603 SCALE 1 : 500	NC 146 (LONG SHOALS ROAD) AT SCHENCK PARKWAY / SKYLAND INN DRIVE DIVISION 13 BUNCOMBE COUNTY ASHEVILLE PLAN DATE: 2-11-04 REVIEWED BY: D. WORTON PREPARED BY: C.B. HOLDEN PROJECT NO. 302-079-SIG4 REVISIONS: INIT. DATE	SEAL DONALD W. MORTON ENGINEER 19798 SIGNATURE: DATE: 2-26-04 SIG. INVENTORY NO. 13-1126
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