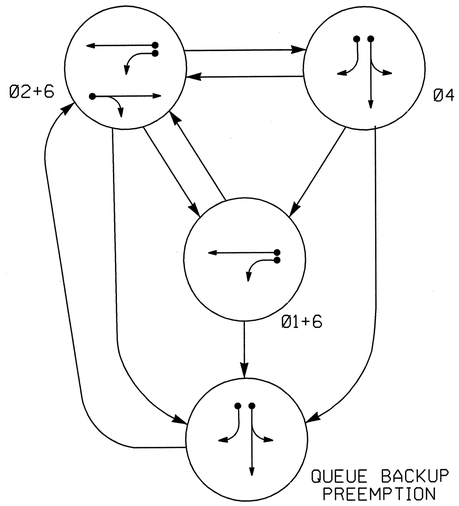
METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2813C	SIG.2

PHASING DIAGRAM



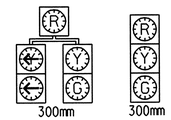
PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION					
SIGNAL FACE	PHASE Ø1+6	PHASE Ø2+6	PHASE Ø4	OPPOSING VEHICLE OUTPUT	FLASH
21,22	R	G	R	R	Y
41,42	R	R	G	G	R
61	G	G	R	R	Y
62	G	G	R	R	Y

SIGNAL FACE I.D.

Denotes L.E.D.



2070L LOOP & DETECTOR INSTALLATION

INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
LOOP	SIZE (M)	TURNS	DISTANCE FROM STOPBAR (M)	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	SYSTEM LOOP	STRETCH TIME	DELAY TIME	NEW CARD
IA	1.8X18	2-4-2	0	Y	6	Y	Y	Y	-	——	3	Y
					1	Y	Y	-	-	——	15	Y
2A	1.8X18	2-4-2	0	Y	2	Y	Y	-	-	——	——	Y
4A	1.8X18	2-4-2	0	Y	4	Y	Y	-	-	——	——	Y
4B	1.8X18	2-4-2	0	Y	4	Y	Y	-	-	——	15	Y
4C	1.8X12	2-4-2	0	Y	4	Y	Y	-	-	——	20	Y
6A	1.8XI.8	5	90	Y	6	Y	Y	-	-	1.8	——	Y
6B	1.8XI.8	4	27	Y	6	Y	Y	-	-	——	——	Y
SI	1.8XI.8	4	+35	Y	——	-	-	-	Y	——	——	Y
QI	1.8XI.8	6	255	Y	PRE 1	Y	-	-	Y	——	5	Y

PLAN QUANTITIES

Pay Item	Meters
Signal Cable	125
Messenger Cable	——
Lead-in Cable	1030

2070L BACKUP PREEMPTION

FUNCTION	SECONDS
Interval-Dwell Green	255
Interval Yellow	0.0
Interval Red	0.0
Interval 5-Exit Green	1
Interval 5-Yellow	0.0
Interval 5-Red	0.0
Delay Time	0
Min. Green Before Preempt	7
Ped Clear Before Preempt	——
Yellow Clear Before Preempt	4.7
Red Clear Before Preempt	2.0
Dwell Min Time	32
Dwell Max Time (MINUTES)	2
Enable Backup Protection	N
Ped Clear Through Yellow	N

3 Phase Fully Actuated
(Closed Loop Signal System)

NOTES

1. REFER TO "ROADWAY STANDARD DRAWINGS NCDOT", DATED JANUARY 2002 AND "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2002.
2. MAXIMUM TIMES SHOWN IN TIMING CHART ARE FOR FREE-RUN OPERATIONS ONLY. COORDINATED SIGNAL SYSTEM TIMING VALUES SHALL SUPERSEDE THESE VALUES.
3. SET ALL DETECTOR UNITS TO PRESENCE MODE.
4. CLOSED LOOP SYSTEM DATA: INTERSECTION CONTROLLER ASSET # 0672

2070L TIMING CHART

FEATURE	PHASE 1	PHASE 2	PHASE 4	PHASE 6
Min Green 1 *	7	12	7	12
Extension 1 *	1	2	1	2
Max Green 1 *	20	50	25	50
Yellow Clearance	4.0	4.7	4.0	4.7
Red Clearance	1.0	2.0	1.5	2.0
Walk 1 *	-	-	-	-
Don't Walk 1	-	-	-	-
Seconds Per Actuation *	-	-	-	-
Max Variable Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
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.

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	
	50mm Underground Conduit	
N/A	Right of Way with Marker	
	Directional Arrow	
A	No Right Turn Sign (R3-1)	A
B	No Left Turn Sign (R3-2)	B
C	"LEFT TURN YIELD ON GREEN" Sign (R10-12)	C

SIGNAL UPGRADE - FINAL

PLANS PREPARED BY :
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FOR
DIVISION OF HIGHWAYS

Prepared for the Offices of:
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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signals and Geometrics Section
122 N. McDowell St., Raleigh, NC 27603

NC 146 (LONG SHOALS ROAD)
AT
I-26 EB RAMPS

DIVISION 13 BUNCOMBE COUNTY ASHEVILLE

PLAN DATE: 02-10-04 REVIEWED BY: D. MORTON

PREPARED BY: C.B. HOLDEN RK&K PROJECT NO. 302-079-SIG4

SCALE 5 0 10 1 : 500

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 19798 ENGINEER DONALD W. MARTIN

SIGNATURE 2-26-04 DATE

SIG. INVENTORY NO. 13-0672