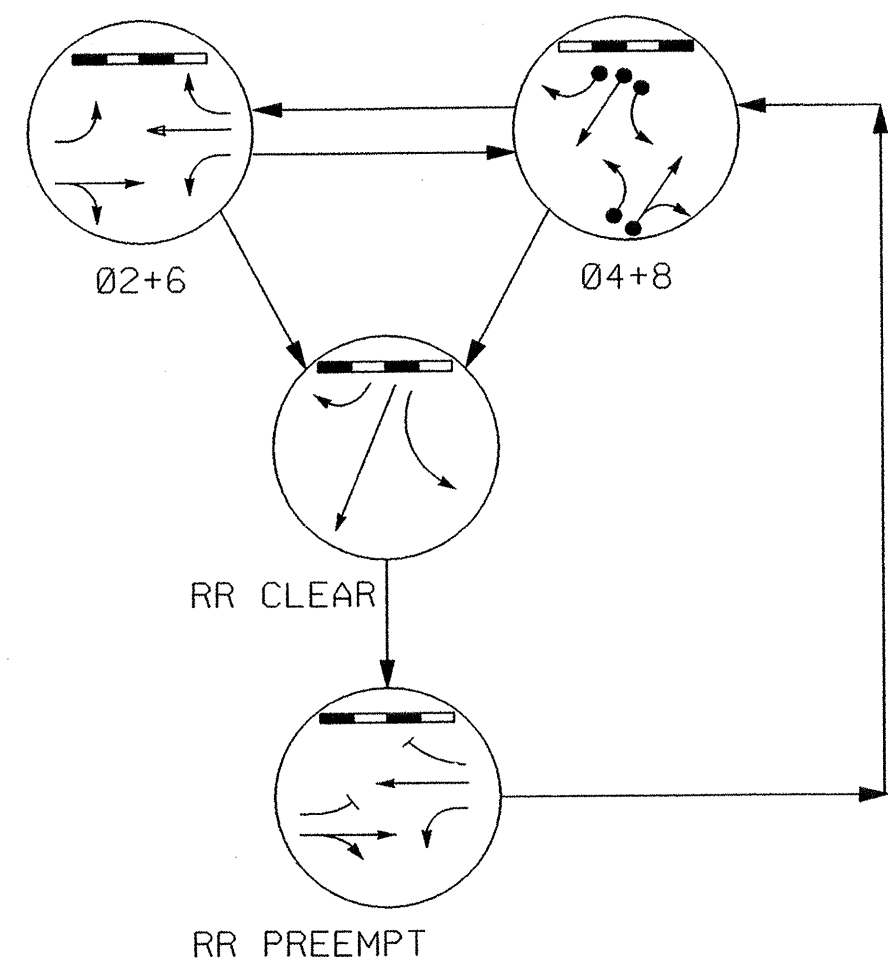


2 PHASE
SEMI ACTUATED
RAILROAD PREEMPTION
ISOLATED

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2002 and "Standard Specifications for Roads and Structures" dated January 2002.
2. Set all detector units to presence mode.
3. Ensure flashing operation does not alter operation of blankout signs.
4. Reposition existing signal heads numbered #21, 22, 41, 42, 61, 62, 81, and 82.
5. This location contains railroad preemption phasing. Do not program signal for late night flashing operation.

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

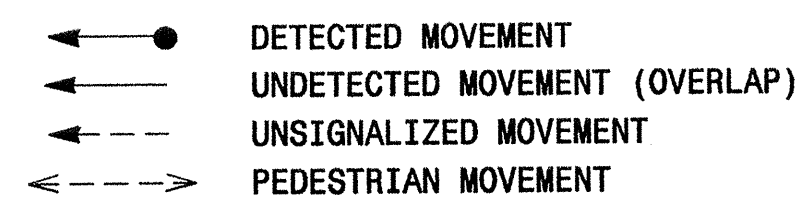


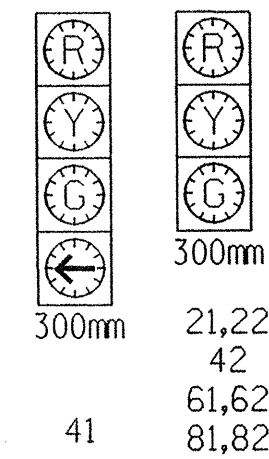
TABLE OF OPERATION

SIGNAL FACE	PHASE				
	0 2 + 6	0 4 + 8	R R C L E A R	R R P R E E M P T	F L O W
21,22	G	R	R	G	Y
41	R	G	G	R	R
42	R	G	G	R	R
61,62	G	R	R	G	Y
81,82	R	G	R	R	R
SIGN (A)	OFF	OFF	ON	ON	*
SIGN (B)	OFF	OFF	ON	ON	*

* SEE NOTE 3

SIGNAL FACE I.D.

 Denotes L.E.D.



PLAN QUANTITIES

Pay Item	Meters
Signal Cable	0
Messenger Cable	0
Loop Lead-in Cable	495

2070L TIMING CHART

FEATURE	PHASE			
	2	4	6	8
Min Green 1 *	12	7	12	7
Extension 1 *	0.0	1.0	0.0	1.0
Max Green 1 *	45	20	45	20
Yellow Clearance	5.0	4.0	5.0	4.0
Red Clearance	3.0	2.5	3.0	2.5
Walk 1 *	-	-	-	-
Don't Walk 1	-	-	-	-
Seconds Per Actuation *	-	-	-	-
Max Variable Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Recall Mode	MAX RECALL	-	MAX RECALL	-
Vehicle Call Memory	YELLOW	-	YELLOW	-
Dual Entry	-	ON	-	ON
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.

2070 RAIL PREEMPTION

Interval 1 – Track Clearance Green	23
Interval 1 – Track Clearance Yellow	4.0
Interval 1 – Track Clearance Red	2.5
Interval 2 – Dwell Green	255
Interval 2 – Dwell Yellow	0.0*
Interval 2 – Dwell Red	0.0*
Interval 5 – Exit Green	1
Interval 5 – Exit Yellow	0.0*
Interval 5 – Exit Red	0.0*
Delay Time	0
Min Green Before Pre	1
Ped Clear Before Pre	0
Yellow Clear Before Pre	5.0
Red Clear Before Pre	3.0
Dwell Min Time	10
Ped Clear Through Yellow	N

* Clearance time defaults to time used for phase during normal operation.

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
4A	1.8 X 12	2-4-2	+1	Y	4	Y	Y	-	-	3
4B	1.8 X 18	2-4-2	0	Y	4	Y	Y	-	-	-
4C	1.8 X 18	2-4-2	+2	Y	4	Y	Y	-	-	15
8A	1.8 X 18	2-4-2	+0	Y	8	Y	Y	-	-	3
8B	1.8 X 18	4-4-2	+2	Y	8	Y	Y	-	-	10

Prepared in the Office of:

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TRANSPORTATION CONSULTANTS

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4904 PROFESSIONAL COURT, SUITE 201
Raleigh, North Carolina 27609

SIGNAL UPGRADE - TEMPORARY DESIGN 2

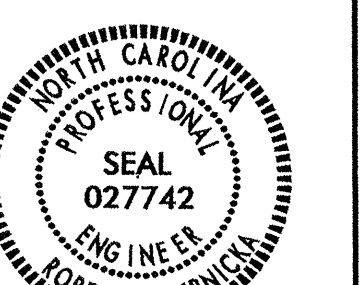
N.C. 274 (BESSEMER CITY ROAD)
AT

SR 1334 (JENKINS DAIRY ROAD) &
SR 1135 (SHANNON BRADLEY ROAD)
DIVISION 12 GASTON COUNTY GASTONIA

PLAN DATE:	OCT. 30, 2003	REVIEWED BY: R. DUBNICKA, P.E.
PREPARED BY:	RGJ	REVIEWED BY:

PREPARED BY	ROLE	REVIEWED BY	
REVISIONS		INIT.	DATE

SEAL



Robert J. Dubois
 8-9-04