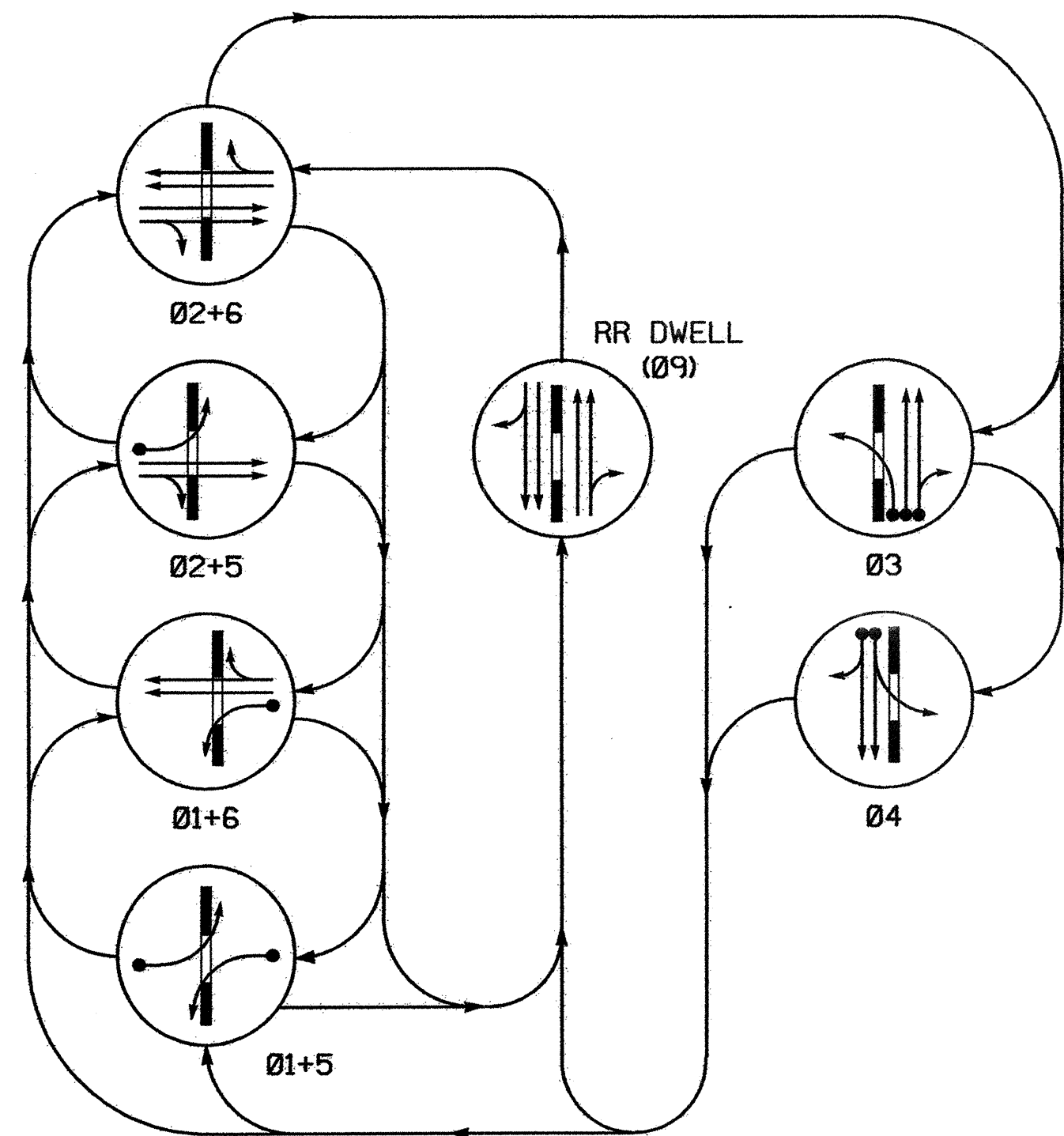


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

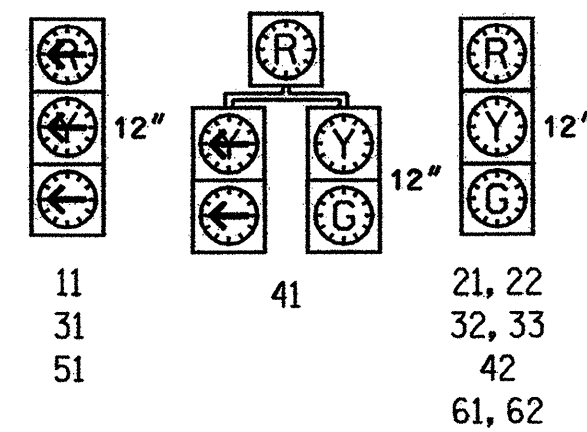
- ←●→ DETECTED MOVEMENT
- ←○→ UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- ←- - -> PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE										
	Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø3	Ø4	RR DWELL	RR DWELL	RR DWELL	RR DWELL	RR DWELL
II	←	←	←	←	←	←	←	←	←	←	←
21, 22	R	R	G	G	R	R	Y	Y	Y	Y	Y
31	←	←	←	←	←	←	←	←	←	←	←
32, 33	R	R	R	R	G	R	G	R	G	R	G
41	R	R	R	R	R	G	G	R	G	R	G
42	R	R	R	R	R	G	G	R	G	R	G
51	←	←	←	←	←	←	←	←	←	←	←
61, 62	R	G	R	G	R	R	Y	Y	Y	Y	Y
Sign (A)	OFF	OFF	OFF	OFF	OFF	OFF	ON	*			

* See Note 9.

SIGNAL FACE I.D.

○ Denotes L.E.D.



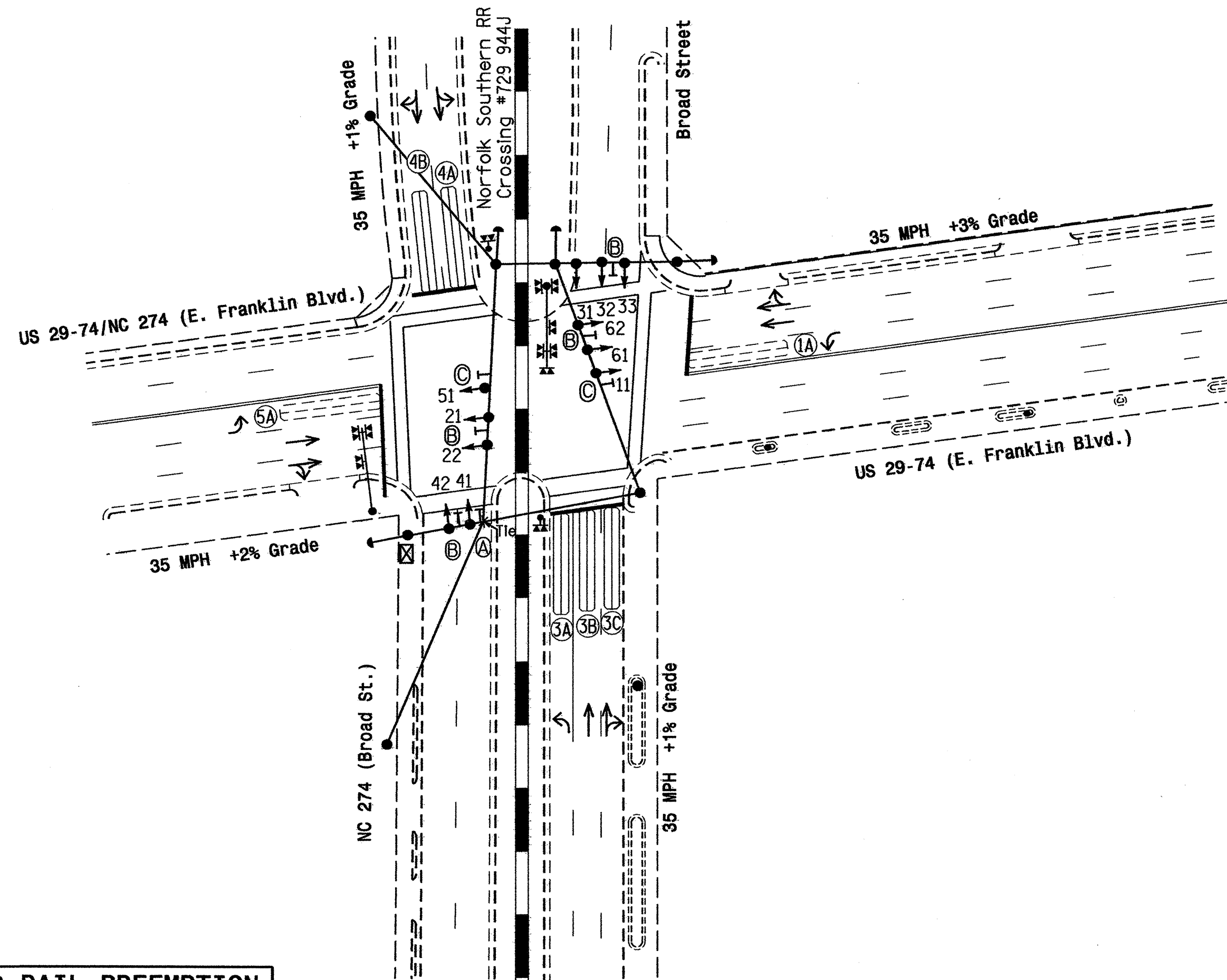
2070L LOOP & DETECTOR INSTALLATION

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING					SYSTEM LOOP	NEW CARD	
					PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME			DELAY TIME
1A	6X40	0	2-4-2	-	1	Y	Y	-	-	3	-	Y
3A	6X40	0	2-4-2	Y	3	Y	Y	-	-	-	-	Y
3B	6X40	0	2-4-2	Y	3	Y	Y	-	-	-	-	Y
3C	6X40	0	2-4-2	Y	3	Y	Y	-	-	10	-	Y
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	-	-	Y
4B	6X40	0	2-4-2	Y	4	Y	Y	-	-	10	-	Y
5A	6X40	0	2-4-2	-	5	Y	Y	-	-	3	-	Y

6 Phase Semi-Actuated With Railroad Preemption (Gastonia City System)

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2002 and "Standard Specifications for Roads and Structures" dated January 2002.
- This location contains railroad preemption phasing. Do not program signal for late night flashing operation.
- Phase 1 or phase 5 may be lagged.
- The order of phase 3 and phase 4 may be reversed.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Thirty days after implementation of the revised signal operation, orange flags may be removed at the discretion of the Regional Traffic Engineer.
- Pavement markings are existing.
- Ensure flashing operation does not alter operation of blankout signs.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- City system data:
Controller Asset #: 0043.



LEGEND

- | PROPOSED | EXISTING |
|--|---|
| ○ → Traffic Signal Head | ● → N/A |
| ○ → Modified Signal Head | ○ → N/A |
| □ → Pedestrian Signal Head With Push Button & Sign | □ → N/A |
| ○ → Signal Pole with Guy | ○ → N/A |
| ○ → Signal Pole with Sidewalk Guy | ○ → N/A |
| ○ → Metal Strain Pole | ○ → N/A |
| ○ → Inductive Loop Detector | ○ → N/A |
| ○ → Controller & Cabinet | ○ → N/A |
| ○ → Junction Box | ○ → N/A |
| ○ → 2-in Underground Conduit | ○ → N/A |
| N/A → Right of Way | N/A → Right of Way |
| → → Directional Arrow | → → Directional Arrow |
| N/A → Railroad Tracks | N/A → Railroad Tracks |
| N/A → Railroad Cantilever | N/A → Railroad Cantilever |
| ⊙ → "NO LEFT TURN - TRAIN" L.E.D. Blankout Sign | ⊙ → "NO LEFT TURN - TRAIN" L.E.D. Blankout Sign |
| ⊙ → Street Name Sign | ⊙ → Street Name Sign |
| ⊙ → Left Arrow "ONLY" Sign With Flags (R3-5L) | ⊙ → Left Arrow "ONLY" Sign With Flags (R3-5L) |

This plan supersedes the plan signed and sealed on 2/2/05.

FEATURE	2070L TIMING CHART						
	PHASE						
	1	2	3	4	5	6	9
Min Green 1*	7	10	7	7	7	10	7
Extension 1*	2.0	0.0	2.0	2.0	2.0	0.0	
Max Green 1*	15	45	25	25	15	45	
Yellow Clearance	3.0	3.7	3.8	3.8	3.0	3.7	3.8
Red Clearance	3.3	2.0	2.3	2.3	3.3	2.2	1.6
Walk 1*	-	-	-	-	-	-	-
Don't Walk 1	-	-	-	-	-	-	-
Seconds Per Actuation*	-	-	-	-	-	-	-
Max Variable Initial*	-	-	-	-	-	-	-
Time Before Reduction*	-	-	-	-	-	-	-
Time To Reduction*	-	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-	-
Recall Mode	-	MAX RECALL	-	-	-	MAX RECALL	-
Vehicle Call Memory	-	-	-	-	-	-	-
Dual Entry	-	-	-	-	-	-	-
Simultaneous Gap	ON	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 RAIL PREEMPTION

Interval 1 - Track Clearance Green	0
Interval 1 - Track Clearance Yellow	0.0
Interval 1 - Track Clearance Red	0.0
Interval 2 - Dwell Green	255
Interval 2 - Dwell Yellow	0.0 *
Interval 2 - Dwell Red	0.0 *
Interval 5 - Exit Green	1
Interval 5 - Yellow	0.0
Interval 5 - Red	0.0
Delay Time	0
Min Green Before Pre	1
Ped Clear Before Pre	0
Yellow Clear Before Pre	0.0 *
Red Clear Before Pre	0.0 *
Dwell Min Time	7
Ped Clear Through Yellow	N

* Time default to time used for phases during normal operation.

Signal Upgrade

Prepared in the Office of:

 STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 SIGNALS AND GEOMETRIC DESIGN

US 29-74/NC 274 (E. Franklin Boulevard) at NC 274 (Broad Street)

Division 12 Gaston County Gastonia

PLAN DATE: October 2005 REVIEWED BY: Sterling

PREPARED BY: Sterling REVIEWED BY:

SEAL
 NORTH CAROLINA
 PROFESSIONAL ENGINEER
 SEAL
 026486
 ENGINEER
 ROBERT J. ZIEMBA

SCALE
 0 40
 1" = 40'

REVISIONS	INIT.	DATE

DATE
 10/28/05
 DATE

SIG. INVENTORY NO. 12-0043

28-Oct-2005 10:40 s:\15\signal\sig\kgr\cupse\12-0043\120043-19.dgn_2005 (dx.dgn) walter.ling