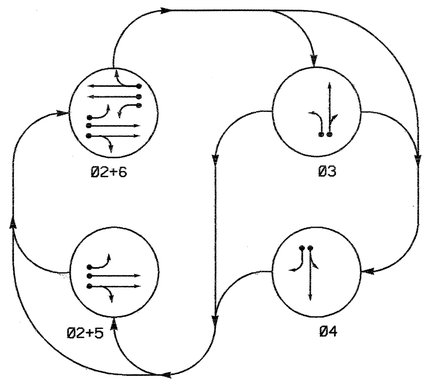
PROJECT REFERENCE NO.	SHEET NO.
U-4736	SIG210

4 Phase
Fully Actuated
(Gastonia City System)

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

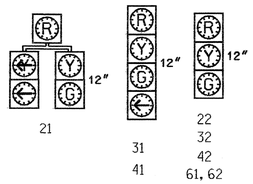
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2+5	PHASE Ø2+6	PHASE Ø3	PHASE Ø4	PHASE FLASH
21	G	G	R	R	Y
22	G	G	R	R	Y
31	R	R	G	R	R
32	R	R	G	R	R
41	R	R	R	G	R
42	R	R	R	G	R
61, 62	R	G	R	R	Y

SIGNAL FACE I.D.

Denotes L.E.D.

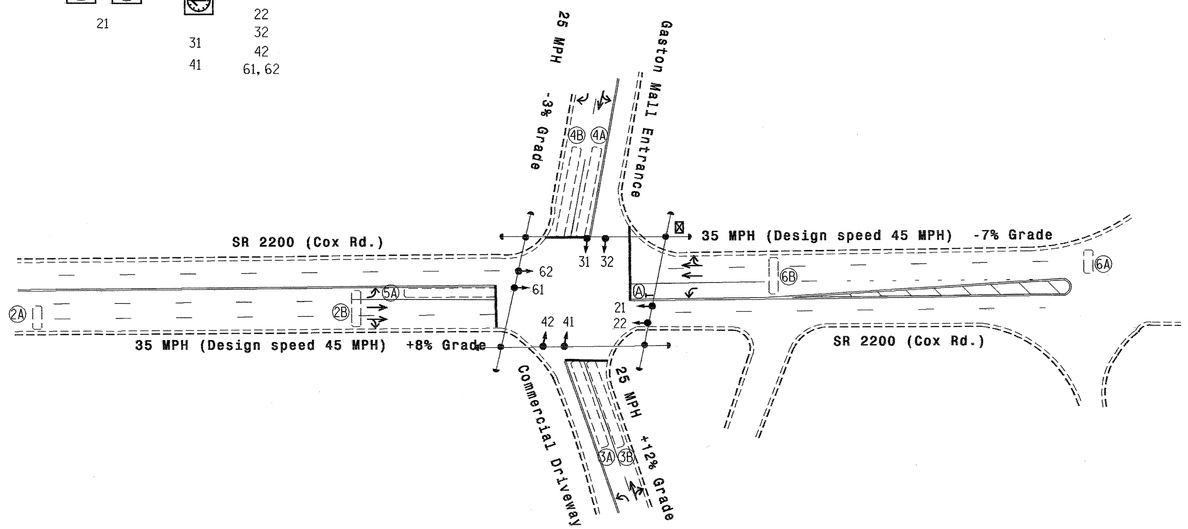


2070L LOOP & DETECTOR INSTALLATION

INDUCTIVE LOOPS					DETECTOR PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
2A	EXIST	EXIST	EXIST	-	2	Y	Y	-	1.8	-	-	Y
2B	EXIST	EXIST	EXIST	-	2	Y	Y	-	-	-	-	Y
3A	EXIST	EXIST	EXIST	-	3	Y	Y	-	-	3	-	Y
3B	EXIST	EXIST	EXIST	-	3	Y	Y	-	-	5	-	Y
4A	EXIST	EXIST	EXIST	-	4	Y	Y	-	-	3	-	Y
4B	EXIST	EXIST	EXIST	-	4	Y	Y	-	-	10	-	Y
5A	EXIST	EXIST	EXIST	-	5	Y	Y	-	-	15	-	Y
					2	Y	Y	Y	-	3	-	Y
6A	EXIST	EXIST	EXIST	-	6	Y	Y	-	1.8	-	-	Y
6B	EXIST	EXIST	EXIST	-	6	Y	Y	-	-	-	-	Y

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2002 and "Standard Specifications for Roads and Structures" dated January 2002.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Omit phase 5 during phase 6 on.
4. Program controller to clear from phase 2+6 to phase 2+5 by progressing through phase 4 (see Electrical Details).
5. The order of phase 3 and phase 4 may be reversed.
6. Set all detector units to presence mode.
7. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
8. Pavement markings are existing.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
10. Closed loop system data: Controller Asset #1238.



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	■
·····	2-in Underground Conduit	·····
N/A	Right of Way with Marker	—△—
→	Directional Arrow	→
→	Pavement Marking Arrow	→
N/A	"LEFT TURN YIELD ON GREEN" Sign (R10-12)	Ⓐ

2070L TIMING CHART

FEATURE	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6
Min Green 1 *	12	7	7	7	12
Extension 1 *	2.0	2.0	1.0	2.0	2.0
Max Green 1 *	45	25	25	15	45
Yellow Clearance	4.7	4.0	4.0	4.0	4.7
Red Clearance	1.6	1.7	1.7	1.6	1.6
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	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phase 2 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

Signal Upgrade

Prepared in the Offices of:
Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signals and Geometrics Section
122 N. McDowell St., Raleigh, NC 27603

SR 2200 (Cox Rd.) at Gaston Mall Entrance /Commercial Dr.

Division 12 Gaston County Gastonia

PLAN DATE: Febraury 2005 REVIEWED BY:

PREPARED BY: C. Pierce REVIEWED BY: D. Y. Ishak

SCALE 0 50 1"=50'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 20261 ENGINEER DAVID E. MULLINAX
16 FEBRUARY 05

SIGNATURE DATE

SIG. INVENTORY NO. 12-1238