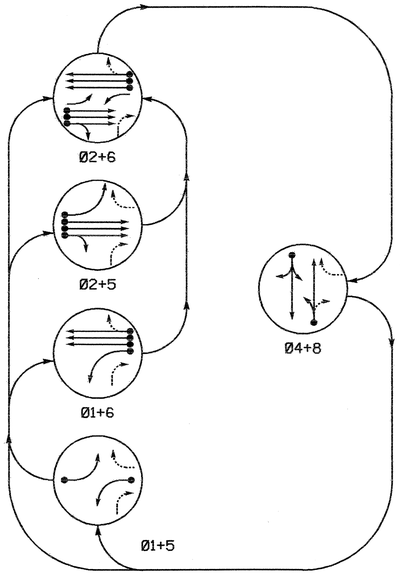
PROJECT REFERENCE NO.	SHEET NO.
U-4736	Sig218

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

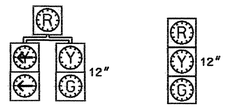
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø4+8	FLASH
21	R	R	G	G	R	Y
22,23	R	R	G	G	R	Y
41,42	R	R	R	R	G	R
61	R	G	R	G	R	Y
62,63	R	G	R	G	R	Y
81,82	R	R	R	R	G	R

SIGNAL FACE I.D.

Denotes L.E.D.



21
61

22,23
41,42
62,63
81,82

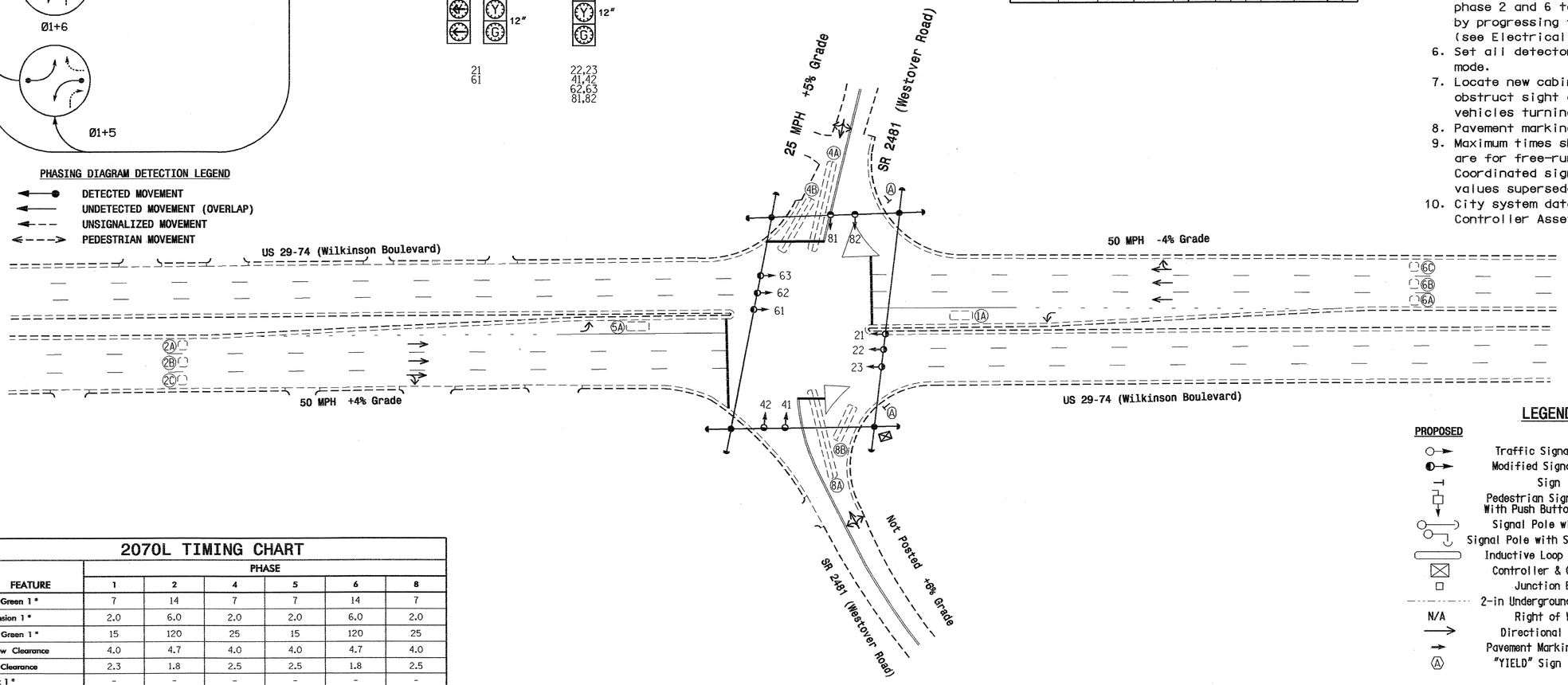
2070L LOOP & DETECTOR INSTALLATION

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
1A	EXIST	EXIST	EXIST	-	1	Y	Y	-	-	15	-	Y
2A	EXIST	EXIST	EXIST	-	2	Y	Y	-	-	-	-	Y
2B	EXIST	EXIST	EXIST	-	2	Y	Y	-	-	-	-	Y
2C	EXIST	EXIST	EXIST	-	2	Y	Y	-	-	-	-	Y
4A	EXIST	EXIST	EXIST	-	4	Y	Y	-	-	3	-	Y
4B	EXIST	EXIST	EXIST	-	4	Y	Y	-	-	15	-	Y
5A	EXIST	EXIST	EXIST	-	5	Y	Y	-	-	15	-	Y
6A	EXIST	EXIST	EXIST	-	6	Y	Y	-	-	-	-	Y
6B	EXIST	EXIST	EXIST	-	6	Y	Y	-	-	-	-	Y
6C	EXIST	EXIST	EXIST	-	6	Y	Y	-	-	-	-	Y
8A	EXIST	EXIST	EXIST	-	8	Y	Y	-	-	3	-	Y
8B	EXIST	EXIST	EXIST	-	8	Y	Y	-	-	20	-	Y

5 Phase
Fully Actuated
Gastonia City Signal System

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 1 during phase 2 on.
4. Omit phase 5 during phase 6 on.
5. Program controller to clear from phase 2 and 6 to phase 1 and/or 5 by progressing through phase 4+8 (see Electrical Details).
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. City system data: Controller Asset #1348.



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	
	Directional Arrow	
	Pavement Marking Arrow	
Ⓐ	"YIELD" Sign (R1-2)	Ⓐ

2070L TIMING CHART

FEATURE	PHASE 1	2	4	5	6	8
Min Green 1 *	7	14	7	7	14	7
Extension 1 *	2.0	6.0	2.0	2.0	6.0	2.0
Max Green 1 *	15	120	25	15	120	25
Yellow Clearance	4.0	4.7	4.0	4.0	4.7	4.0
Red Clearance	2.3	1.8	2.5	2.5	1.8	2.5
Walk 1 *	-	-	-	-	-	-
Don't Walk 1	-	-	-	-	-	-
Seconds Per Actuation *	-	1.5	-	-	1.5	-
Max Variable Initial *	-	36	-	-	36	-
Time Before Reduction *	-	15	-	-	15	-
Time To Reduce *	-	30	-	-	30	-
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 6 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
Traffic Engineering Unit
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signals and Geometrics Section
122 N. McDowell St., Raleigh, NC 27603

US 29-74 (Wilkinson Boulevard) at SR 2481 (Westover Road)

Division 12 Gaston County Gastonia

PLAN DATE: February 2005 REVIEWED BY: D.Y. Ishak

PREPARED BY: Z.W. Little REVIEWED BY:

REVISIONS	INIT.	DATE

SCALE 0 40 1"=40'

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 23025 ENGINEER RICHARD E. MULLINAX
SIGNATURE 25 FEBRUARY 05 DATE

SIG. INVENTORY NO. 12-1348

12-MAY-2005 11:31
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