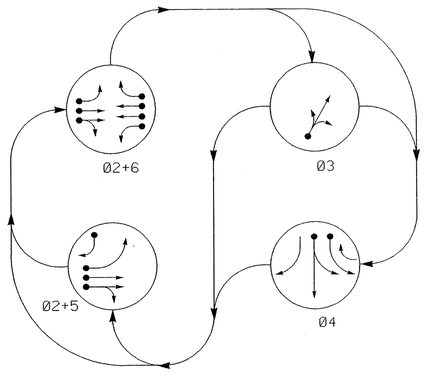
METRIC	PROJECT REFERENCE NO.	SHEET NO.
	U-2408	SIG. 16

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2+5	Ø2+6	Ø3	Ø4	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
43	R	R	R	G	R
61,62	R	G	R	R	Y
63	R	G	R	R	Y

SIGNAL FACE I.D.

Denotes L.E.D.

21 | 31, 41 | 22, 32, 42, 61, 62 | 43, 63

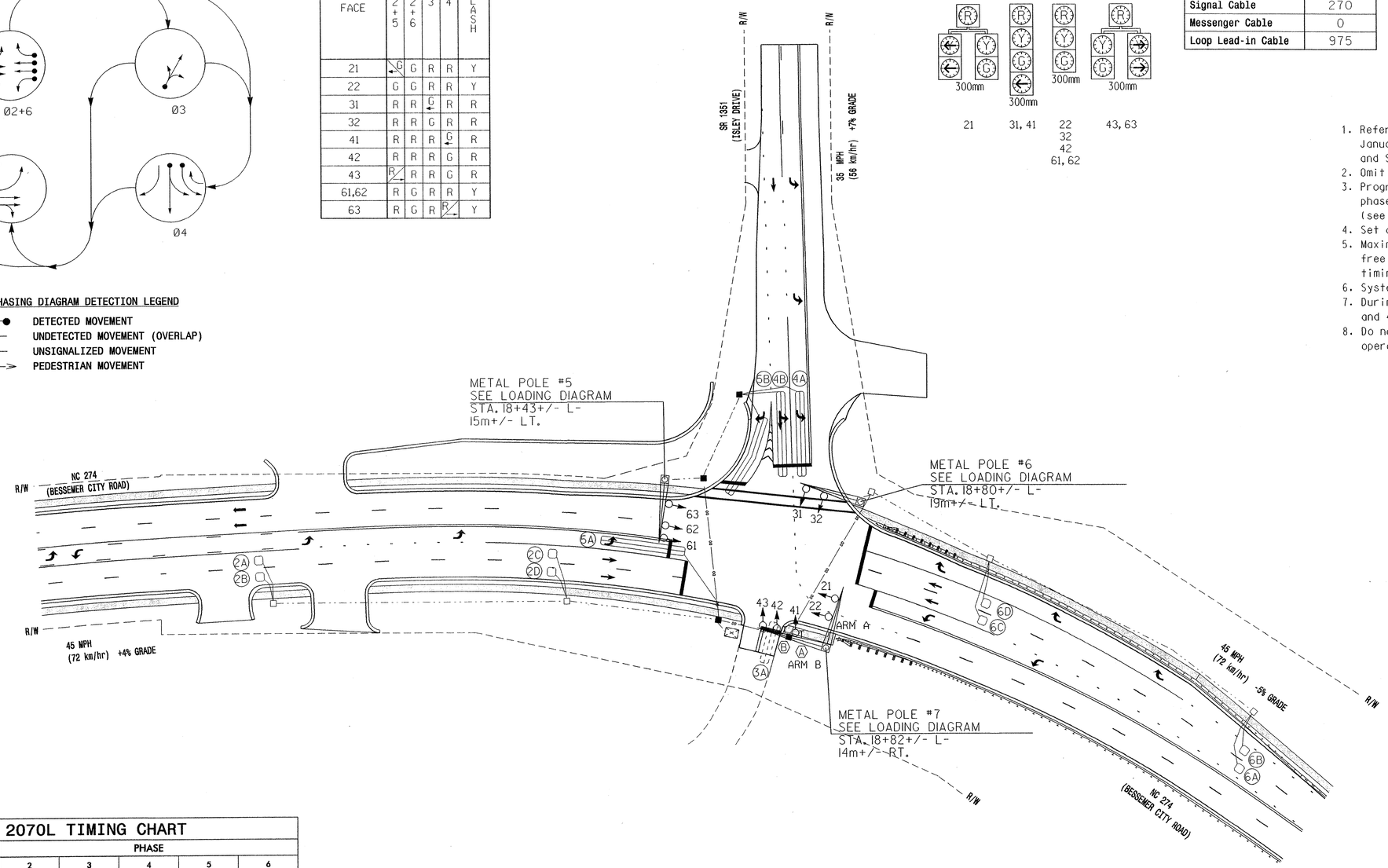
PLAN QUANTITIES

Pay Item	Meters
Signal Cable	270
Messenger Cable	0
Loop Lead-in Cable	975

4 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. Omit Phase 5 during Phase 6 on.
3. Program controller to clear from phase 2+6 to phase 5 by progressing through phase 4 (see Electrical Details).
4. Set all detector units to presence mode.
5. Maximum times shown in timing chart are for free run operation only. Coordinated signal system timing values shall supersede these values.
6. System data: Controller Asset: 0234
7. During coordination, the order of phase 3 and 4 may be reversed.
8. Do not program signal for late night flashing operation unless otherwise directed by the engineer.



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	
	Pavement Marking Arrow	
	Metal Pole with Mast Arm	
Ⓐ	Left Arrow "ONLY" Sign (R3-5L)	Ⓐ
Ⓑ	Combined Through and Left Arrow Sign (R3-6L)	Ⓑ
	Directional Drill	
	2 - 50mm Polyethylene Conduit	N/A

2070L TIMING CHART

FEATURE	PHASE 2	3	4	5	6
Min Green 1 *	12	7	7	7	12
Extension 1 *	2.0	1.0	1.0	1.0	2.0
Max Green 1 *	45	20	20	15	45
Yellow Clearance	5.0	4.0	4.0	4.0	5.0
Red Clearance	2.0	2.0	3.0	3.0	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	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.

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
2A,2B	1.8 X 1.8	4	90	Y	2	Y	Y	-	-	1.8	-	Y
2C,2D	1.8 X 1.8	4	27	Y	2	Y	Y	-	-	-	-	Y
3A	1.8 X 9	2-4-2	+1	-	3	Y	Y	-	-	-	10	-
4A	1.8 X 18	2-4-2	+2	Y	4	Y	Y	-	-	-	3	-
4B	1.8 X 18	2-4-2	+2	Y	4	Y	Y	-	-	-	3	-
5A	1.8 X 18	2-4-2	+2	Y	5	Y	Y	-	-	-	15	-
					2	Y	Y	-	-	-	-	Y
5B	1.8 X 18	+2	+2	Y	5	Y	Y	-	-	-	15	-
6A,6B	1.8 X 1.8	5	90	Y	6	Y	Y	-	-	1.8	-	Y
6C,6D	1.8 X 1.8	4	27	Y	6	Y	Y	-	-	-	-	Y

Prepared in the Office of:

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SIGNAL UPGRADE - FINAL DESIGN

Traffic Engineering and Safety Systems Branch
Signals and Geometrics Section
DIVISION OF HIGHWAYS · DEPARTMENT OF TRANSPORTATION

SCALE 5 0 10 1:500

N.C. 274 (BESSEMER CITY ROAD) AT SR 1351 (ISLEY DRIVE)

DIVISION 12 GASTON COUNTY GASTONIA

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

PREPARED BY: RGL REVIEWED BY:

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 027742 ENGINEER ROBERT J. DUBNICKA

SIGNATURE Robert J. Dubnicka DATE 8-9-04

SIG. INVENTORY NO. 12-0234

09-AUG-2004 12:28
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rdubnicka