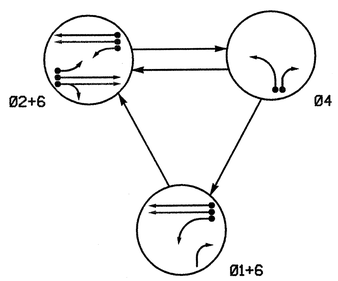
METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2911A	SIG. 16

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

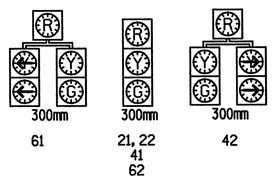
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø1+6	PHASE Ø2+6	PHASE Ø4	FLASH
21, 22	R	G	R	Y
41	R	R	G	R
42	R/G	R	G	R
61	G	G	R	Y
62	G	G	R	Y

SIGNAL FACE I.D.

Denotes L.E.D.



LOOP & DETECTOR UNIT INSTALLATION CHART
NEMA CONTROLLER WITH TS-2 CABINET

INDUCTIVE LOOPS						DETECTOR UNITS						
LOOP NO.	SIZE (m)	TURNS	DIST. FROM STOPBAR (m)	NEW	EXISTING	NEMA PHASE	NEW	EXISTING	TIMING FEATURE	TIMING TIME	PLACE CALL DURING PHASE	INHIBIT DELAY DURING GREEN?
1A	1.8X1.8	2-4-2	0	X		1	X		DELAY	15 SEC.	ALL	YES
						6	X		DELAY	3 SEC.	ALL	NO
2A	1.8X1.8	6	130	X		2		X	EXTEND	2.3 SEC.	ALL	NO
2B	1.8X1.8	6	130		X							
2C	1.8X1.8	4	35	X		2		X	-	- SEC.	ALL	NO
2D	1.8X1.8	4	35		X							
2E	1.8X1.8	2-4-2	0	X		2	X		DELAY	3 SEC.	ALL	NO
4A	1.8X1.8	2-4-2	0	X		4		X	DELAY	3 SEC.	ALL	YES
4B	1.8X1.8	2-4-2	0	X		4		X	DELAY	15 SEC.	ALL	YES
6A,6B	1.8X1.8	5	130	X		6		X	EXTEND	2.3 SEC.	ALL	NO
6C,6D	1.8X1.8	4	35	X		6		X	-	- SEC.	ALL	NO
S22	1.8X1.8	4	+50	X		-	X		SYSTEM DETECTOR			
S23	1.8X1.8	4	+50	X		-	X		SYSTEM DETECTOR			

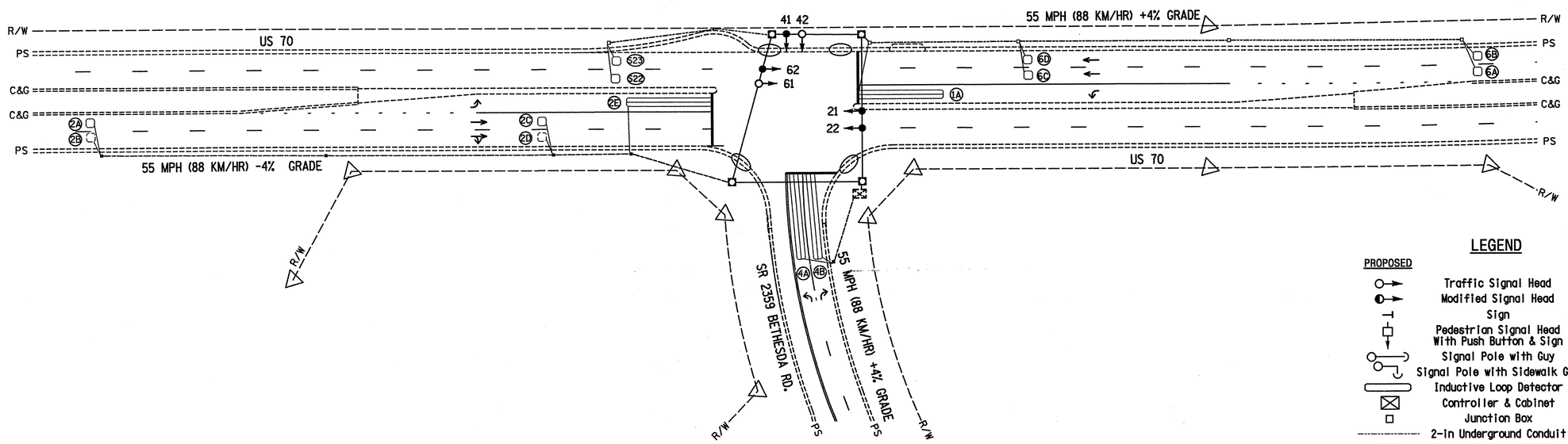
3 PHASE ACTUATED
(CLOSED LOOP SYSTEM)

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2002 and "Standard Specifications for Roads and Structures" dated January 2002.
2. Reposition existing signal heads numbered 21, 22 and 62.
3. Omit phase 1 during phase 2 on.
4. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
5. Set all detector units to presence mode.
6. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
7. Closed loop system data: Intersection Number #10, Local telemetry address number #10, Channel number #2.

PLAN QUANTITIES

Pay Item	Meters
Signal Cable	0
Messenger Cable	0
Lead-in Cable	910



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	
	Metal Strain Pole	
N/A	Curb Cut	

TIMING CHART
NEMA CONTROLLER

PHASE	Ø1	Ø2	Ø4	Ø6
MINIMUM GREEN	7 SEC.	14 SEC.	7 SEC.	14 SEC.
PASSAGE/GAP	1.0 SEC.	2.0 SEC.	1.0 SEC.	2.0 SEC.
YELLOW CHANGE INT.	4.0 SEC.	5.7 SEC.	4.0 SEC.	5.7 SEC.
RED CLEARANCE	2.0 SEC.	1.5 SEC.	1.5 SEC.	1.5 SEC.
MAX. 1	15 SEC.	45 SEC.	20 SEC.	45 SEC.
RECALL POSITION	NONE	MIN. RECALL	NONE	MIN. RECALL
VEHI. CALL MEMORY	NONLOCK	LOCK	NONLOCK	LOCK

NEW INSTALLATION-FINAL

ARCADIS
G & M of North Carolina, Inc.
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Prepared in the Offices of:
Traffic Engineering and Safety Systems Branch
Signals and Geometrics Section
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
122 N. McDowell St., Raleigh, NC 27603

SCALE 5 0 10
1:500

US70
AT
SR 2359 (BETHESDA RD.)

DIVISION 12 IREDELL COUNTY E. OF STATESVILLE

PLAN DATE: AUGUST 2002	REVIEWED BY: X. FAN
PREPARED BY: K. MILAM	REVIEWED BY:

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 21080 ENGINEER TYSON A. GRAVES
SEAL NOT VALID UNLESS SIGNED AND DATED
SIGNATURE 12-27-03 DATE
SIG. INVENTORY NO. 12-1692