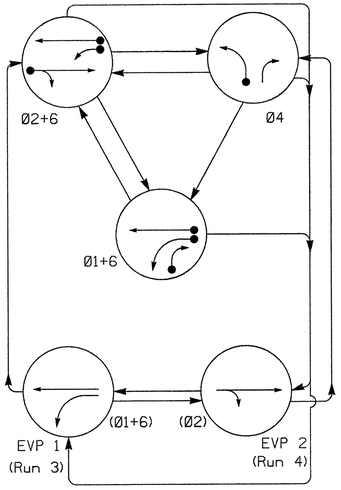
PROJECT REFERENCE NO.	SHEET NO.
U-3328	SIG.10

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

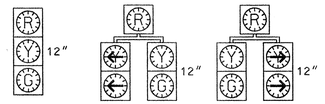
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø1+6	Ø2+6	Ø4	EVP 1	EVP 2	FLASH
21,22	R	G	R	R	G	Y
41	R	R	G	R	R	R
42	R/→	R	G	R	R	R
61	←G	G	R	←G	R	Y
62	G	G	R	G	R	Y

SIGNAL FACE I.D.

Denotes L.E.D.



21,22 41 62 — 61 — 42

EMERGENCY VEHICLE PRE EMPTION TIMING CHART

	PRE EMPT 1	PRE EMPT 2
DELAY BEFORE PRE EMPT	0 SEC	0 SEC
PED CLR BEFORE PRE EMPT	- SEC	- SEC
MIN GREEN BEFORE PRE EMPT	▲ SEC	▲ SEC
YEL CLR BEFORE PRE EMPT	▲ SEC	▲ SEC
RED CLR BEFORE PRE EMPT	▲ SEC	▲ SEC
PREEMPT DWELL MIN GREEN	5.0 SEC	5.0 SEC
YEL CLR AFTER EV PRE EMPT	4.0 SEC	4.7 SEC
RED CLR AFTER EV PRE EMPT	1.0 SEC	1.5 SEC

▲ SEE NOTE 4

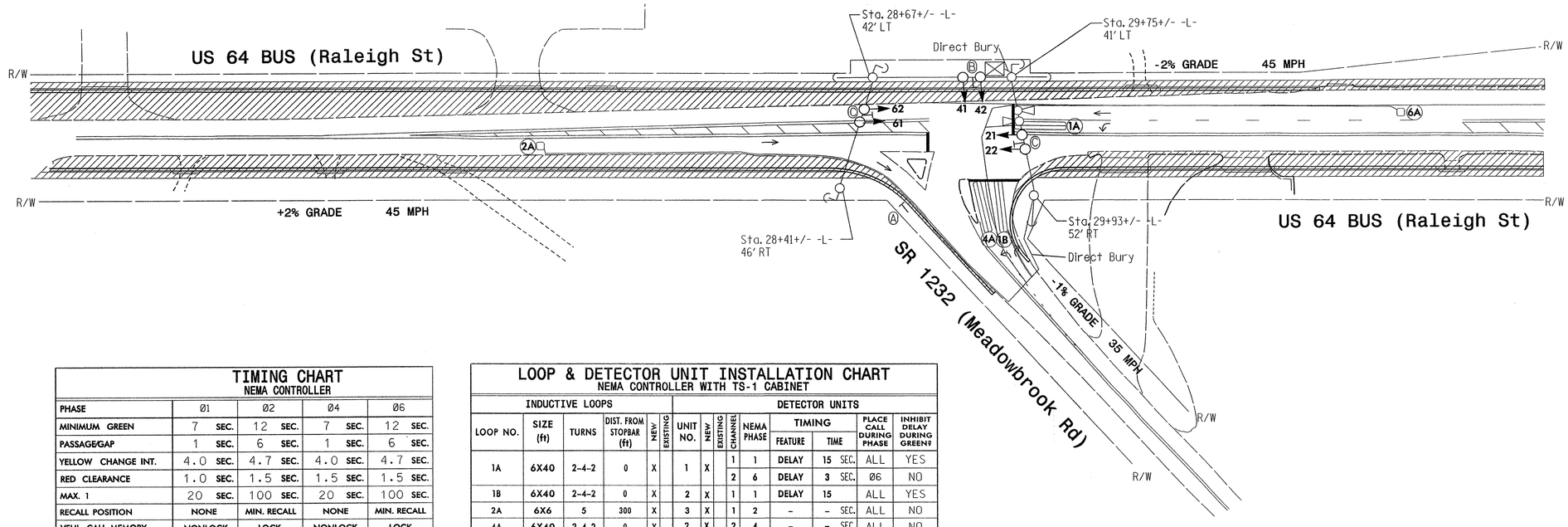
PLAN QUANTITIES

Pay Item	Feet
Signal Cable	370
Messenger Cable	300
Lead-in Cable	1250

3 Phase Fully Actuated w/EV Preemption (Rocky Mount 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. Pavement markings are existing.
3. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
4. Preemption timing to enter the preempt phase sequence only after satisfying minimum green time and clearance interval requirements of the active phase sequence.
5. Relocate existing sign "Raleigh St" and "Meadowbrook Rd."
6. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
7. Set all detector units to presence mode.
8. Closed Loop System Data: Intersection Address #703.
9. To ensure heads 21 and 22 clear to all-red when transitioning to EVP 2, a fixed all-red interval of 5 seconds will be used to initiate the preempt sequence.



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	→
▨	Construction Zone	N/A
◎	Metal Strain Pole	■
○⊣	Opticom Detector	●⊣
Ⓐ	"YIELD" Sign (R1-2)	Ⓐ
Ⓑ	"Raleigh St" Sign	Ⓑ
Ⓒ	"Meadowbrook Rd" Sign	Ⓒ

TIMING CHART
NEMA CONTROLLER

PHASE	Ø1	Ø2	Ø4	Ø6
MINIMUM GREEN	7 SEC.	12 SEC.	7 SEC.	12 SEC.
PASSAGE/GAP	1 SEC.	6 SEC.	1 SEC.	6 SEC.
YELLOW CHANGE INT.	4.0 SEC.	4.7 SEC.	4.0 SEC.	4.7 SEC.
RED CLEARANCE	1.0 SEC.	1.5 SEC.	1.5 SEC.	1.5 SEC.
MAX. 1	20 SEC.	100 SEC.	20 SEC.	100 SEC.
RECALL POSITION	NONE	MIN. RECALL	NONE	MIN. RECALL
VEHI. CALL MEMORY	NONLOCK	LOCK	NONLOCK	LOCK
WALK	- SEC.	- SEC.	- SEC.	- SEC.
FLASHING DON'T WALK	- SEC.	- SEC.	- SEC.	- SEC.
VOLUME DENSITY	OFF	ON	OFF	ON
ACTUATION B4 ADD	- VEH.	- VEH.	- VEH.	- VEH.
SEC. PER ACTUATION	- SEC.	2 SEC.	- SEC.	2 SEC.
MAX. INITIAL	- SEC.	30 SEC.	- SEC.	30 SEC.
TIME B4 REDUCTION	- SEC.	15 SEC.	- SEC.	15 SEC.
TIME TO REDUCE	- SEC.	30 SEC.	- SEC.	30 SEC.
MINIMUM GAP	- SEC.	2.5 SEC.	- SEC.	2.5 SEC.

LOOP & DETECTOR UNIT INSTALLATION CHART
NEMA CONTROLLER WITH TS-1 CABINET

INDUCTIVE LOOPS						DETECTOR UNITS							
LOOP NO.	SIZE (ft)	TURNS	DIST. FROM STOPBAR (ft)	NEW	EXISTING	UNIT NO.	NEW	EXISTING	CHANNEL	NEMA PHASE	TIMING FEATURE	TIMING TIME	PLACE CALL DURING PHASE	INHIBIT DELAY DURING GREEN?
1A	6X40	2-4-2	0	X		1	X		1	1	DELAY	15 SEC.	ALL	YES
									2	6	DELAY	3 SEC.	Ø6	NO
1B	6X40	2-4-2	0	X		2	X		1	1	DELAY	15	ALL	YES
2A	6X6	5	300	X		3	X		1	2	-	- SEC.	ALL	NO
4A	6X40	2-4-2	0	X		2	X		2	4	-	- SEC.	ALL	NO
6A	6X6	5	300	X		3	X		2	6	-	- SEC.	ALL	NO

SIGNAL UPGRADE TEMPORARY DESIGN CONSTRUCTION PHASE I

SEPI ENGINEERING GROUP
2300 Rexwoods Drive
Suite 370
Raleigh, NC 27607
Tel:919-789-9977 Fax:789-9591

Prepared for the Offices of: Traffic Engineering and Safety Systems Branch, State of North Carolina, Department of Transportation, Signals and Geometrics Section
122 N. McDowell St., Raleigh, NC 27603

SCALE 0 50 1"=50'

US 64 BUS (RALEIGH ST)
AT
SR 1232 (MEADOWBROOK RD)

DIVISION 04	EDGECOMBE COUNTY	ROCKY MOUNT
PLAN DATE: Aug 2004	REVIEWED BY:	L Eddins
PREPARED BY: C Kincaid	REVIEWED BY:	S Asefnia

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEIFDEN S. ASEFNIA

8/16/04
SIGNATURE DATE

SIG. INVENTORY NO. 04-0685T

$$$$$SYSTIME$$$$$
$$$$$USERNAME$$$$$