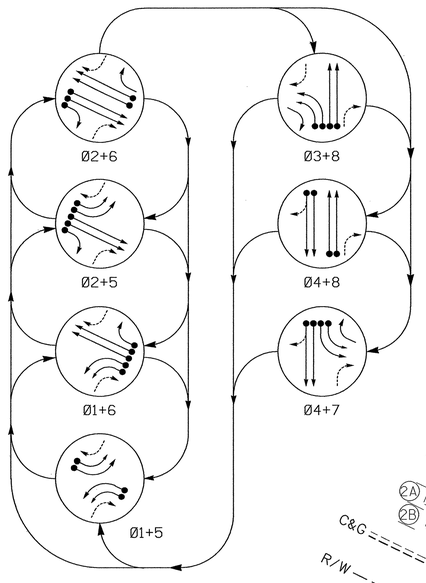
METRIC	PROJECT REFERENCE NO.	SHEET NO.
	U-2734	Sig. 7

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

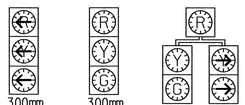
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

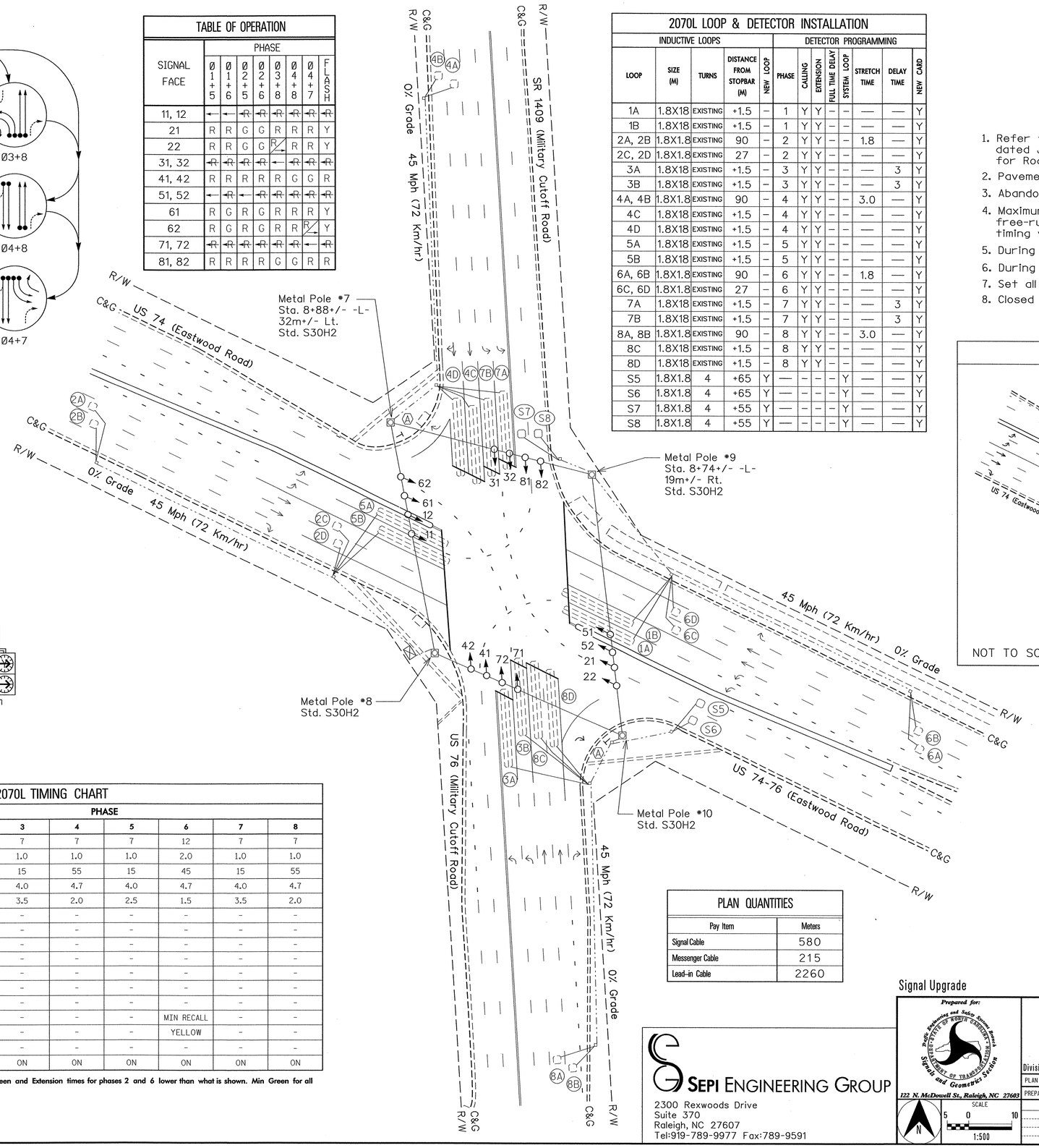
SIGNAL FACE	PHASE							
	Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø3+8	Ø4+8	Ø4+7	FLASH
11, 12	←	←	R	R	R	R	R	R
21	R	R	G	G	R	R	R	Y
22	R	R	G	G	R/→	R	R	Y
31, 32	R	R	R	R	←	R	R	R
41, 42	R	R	R	R	R	G	G	R
51, 52	←	R	←	R	R	R	R	R
61	R	G	R	G	R	R	R	Y
62	R	G	R	G	R	R	R/→	Y
71, 72	R	R	R	R	R	R	←	R
81, 82	R	R	R	R	G	G	R	R

SIGNAL FACE I.D.

Denotes L.E.D.



300mm	300mm	300mm
11, 12	21	22
31, 32	41, 42	62
51, 52	61	
71, 72	81, 82	



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
1A	1.8X18	EXISTING	+1.5	–	1	Y	Y	–	–	—	—	Y
1B	1.8X18	EXISTING	+1.5	–	1	Y	Y	–	–	—	—	Y
2A, 2B	1.8X1.8	EXISTING	90	–	2	Y	Y	–	–	1.8	—	Y
2C, 2D	1.8X1.8	EXISTING	27	–	2	Y	Y	–	–	—	—	Y
3A	1.8X18	EXISTING	+1.5	–	3	Y	Y	–	–	—	3	Y
3B	1.8X18	EXISTING	+1.5	–	3	Y	Y	–	–	—	3	Y
4A, 4B	1.8X1.8	EXISTING	90	–	4	Y	Y	–	–	3.0	—	Y
4C	1.8X18	EXISTING	+1.5	–	4	Y	Y	–	–	—	—	Y
4D	1.8X18	EXISTING	+1.5	–	4	Y	Y	–	–	—	—	Y
5A	1.8X18	EXISTING	+1.5	–	5	Y	Y	–	–	—	—	Y
5B	1.8X18	EXISTING	+1.5	–	5	Y	Y	–	–	—	—	Y
6A, 6B	1.8X1.8	EXISTING	90	–	6	Y	Y	–	–	1.8	—	Y
6C, 6D	1.8X1.8	EXISTING	27	–	6	Y	Y	–	–	—	—	Y
7A	1.8X18	EXISTING	+1.5	–	7	Y	Y	–	–	—	3	Y
7B	1.8X18	EXISTING	+1.5	–	7	Y	Y	–	–	—	3	Y
8A, 8B	1.8X1.8	EXISTING	90	–	8	Y	Y	–	–	3.0	—	Y
8C	1.8X18	EXISTING	+1.5	–	8	Y	Y	–	–	—	—	Y
8D	1.8X18	EXISTING	+1.5	–	8	Y	Y	–	–	—	—	Y
S5	1.8X1.8	4	+65	Y	—	–	–	–	Y	—	—	Y
S6	1.8X1.8	4	+65	Y	—	–	–	–	Y	—	—	Y
S7	1.8X1.8	4	+55	Y	—	–	–	–	Y	—	—	Y
S8	1.8X1.8	4	+55	Y	—	–	–	–	Y	—	—	Y

2070L TIMING CHART

FEATURE	PHASE							
	1	2	3	4	5	6	7	8
Min Green 1 *	7	12	7	7	7	12	7	7
Extension 1 *	1.0	2.0	1.0	1.0	1.0	2.0	1.0	1.0
Max Green 1 *	15	45	15	55	15	45	15	55
Yellow Clearance	4.0	4.7	4.0	4.7	4.0	4.7	4.0	4.7
Red Clearance	2.5	1.5	3.5	2.0	2.5	1.5	3.5	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	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.

PLAN QUANTITIES

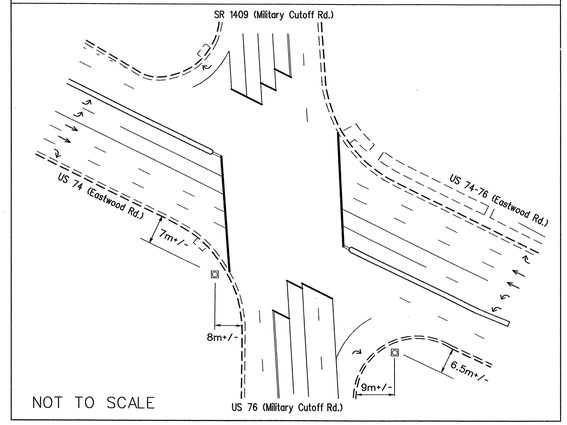
Pay Item	Meters
Signal Cable	580
Messenger Cable	215
Lead-in Cable	2260

7 Phase
(Fully Actuated)
(Military Cutoff Road 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. Abandon existing loops 2E and 6E.
4. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
5. During coordination, phase 1 and/or phase 5 may be lagged.
6. During coordination, phase 3 or phase 7 may be lagged.
7. Set all detector units to presence mode.
8. Closed Loop System Data: Controller Asset #0202

METAL POLE LOCATIONS



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	■
N/A	50mm Underground Conduit	
N/A	Right of Way with Marker	
→	Directional Arrow	→
→	Pavement Marking Arrow	→
◎	Metal Strain Pole	◘
Ⓐ	"YIELD" Sign (R1-2)	Ⓐ

Signal Upgrade

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

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

US 74-76 (Eastwood Road)
at
US 76/SR 1409 (Military Cutoff Road)

Division 3 | New Hanover County | Wilmington

PLAN DATE:	Aug. 2003	REVIEWED BY:	L. M. Eddins
PREPARED BY:	H. M. Surti	REVIEWED BY:	S. S. Asefnia

SCALE 1:500

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 20104 STEPHEN S. ASEFNIA
12-11-03
SIGNATURE DATE
SIG. INVENTORY NO. 03-0202

$$$$SYSTIME$$$$
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