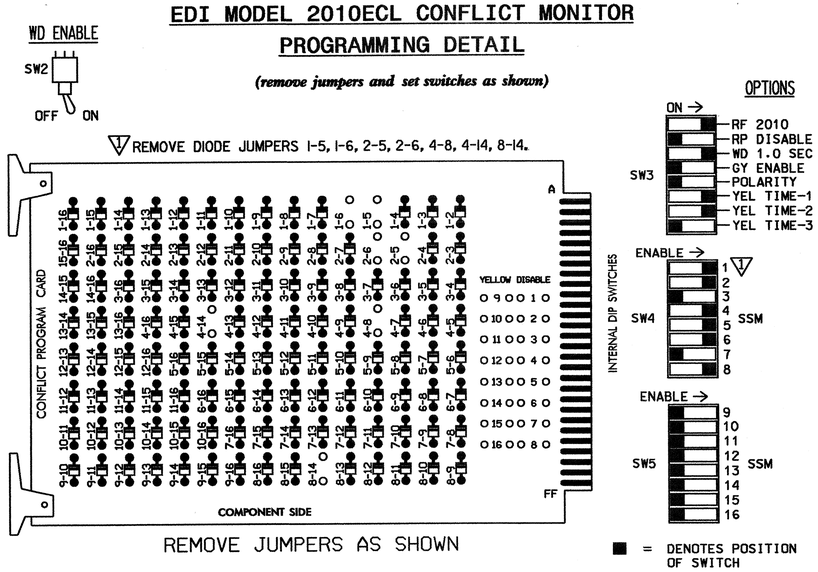
PROJECT REFERENCE NO.	SHEET NO.
R-2813C	SIG.22

EDI MODEL 2010ECL CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)



REMOVE JUMPERS AS SHOWN

■ = DENOTES POSITION OF SWITCH

NOTES:

1. CARD IS PROVIDED WITH ALL DIODE JUMPERS IN PLACE. REMOVAL OF ANY JUMPER ALLOWS ITS CHANNELS TO RUN CONCURRENTLY.
2. MAKE SURE JUMPERS SEL1-SEL5 ARE PRESENT ON THE MONITOR BOARD.

NOTES

1. TO PREVENT "FLASH-CONFLICT" PROBLEMS, INSERT RED FLASH PROGRAM BLOCKS FOR ALL UNUSED VEHICLE LOAD SWITCHES IN THE OUTPUT FILE. THE INSTALLER SHALL VERIFY THAT SIGNAL HEADS FLASH IN ACCORDANCE WITH THE SIGNAL PLANS.
2. ▽2 ENSURE THAT RED ENABLE IS ACTIVE AT ALL TIMES DURING NORMAL OPERATION. TO PREVENT RED FAILURES ON UNUSED MONITOR CHANNELS, TIE UNUSED RED MONITOR INPUTS 3,7,9,10,11,12,13,14,15 & 16 TO LOAD SWITCH AC+ PER CABINET MANUFACTURER'S INSTRUCTIONS.
3. PROGRAM CONTROLLER TO START UP IN PHASES 2 AND 6 GREEN.
4. ENABLE SIMULTANEOUS GAP-OUT FEATURE, ON CONTROLLER UNIT, FOR ALL PHASES.
5. PROGRAM PHASES 4 AND 8, ON CONTROLLER UNIT, FOR DUAL ENTRY.
6. PROGRAM PHASES 2 AND 6, ON CONTROLLER UNIT, FOR VARIABLE INITIAL AND GAP REDUCTION.
7. THE CONTROLLER AND CABINET ARE TO BE PROGRAMMED AND WIRED TO BE PART OF A CLOSED LOOP SIGNAL SYSTEM. CONTROLLER ASSET: 0954
8. IN CONTROL PANEL MENU, PROGRAM START-UP PED CALLS FOR PED 4.

▽ FIELD CONNECTION HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S2P	S3	S4	S4P	S5	S6	S6P	S7	S8	S8P
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED
SIGNAL HEAD NO.	61	21,22	NU	NU	41,42	P41, P42	21	61,62	NU	NU	81,82	NU
GREEN		130			103			136			109	
YELLOW		129			102			135			108	
RED	*	128			101		*	134			107	
RED ARROW												
YELLOW ARROW	126						132					
GREEN ARROW	127						133					
🚶						106						
✋						104						

NU = NOT USED

* DENOTES INSTALL LOAD RESISTOR. SEE LOAD RESISTOR INSTALLATION DETAIL THIS PAGE.

EQUIPMENT INFORMATION

CONTROLLER.....CONTRACTOR SUPPLIED 2070L
CABINET .....CONTRACTOR SUPPLIED 332
SOFTWARE .....ECONOLITE OASIS
CABINET MOUNT.....BASE
OUTPUT FILE POSITIONS...12
▽ LOAD SWITCHES USED.....S1,S2,S4,S4P,S5,S6,S8
PHASES USED.....1,2,4,4PED,5,6,8
OVERLAPS.....NONE

BACK-UP PROTECTION PROGRAMMING DETAIL

(program controller as shown below)

1. FROM MAIN MENU PRESS '2' (PHASE CONTROL), THEN '1' (PHASE CONTROL FUNCTIONS). SCROLL TO THE BOTTOM OF THE MENU AND ENABLE DYNAMIC/BACKUP CONTROL FUNCTIONS 1 AND 2.
2. FROM PHASE CONTROL FUNCTIONS MENU PRESS '2' (DYNAMIC/BACKUP CONTROL FUNCTIONS).

```
DYNAMIC/BACKUP CONTROL FUNCTION #01
                    OVERLAPS:¦ABCDEFGHIJKLMNOP
IF OVERLAPS ARE ACTIVE ¦
OR        PHASES:¦12345678910111213141516
IF PHASES ARE ON ¦     X
OMIT PHASES      ¦    X
CALL PHASES      ¦   X
```

PRESS 'NEXT'

```
▽ DYNAMIC/BACKUP CONTROL FUNCTION #02
                    OVERLAPS:¦ABCDEFGHIJKLMNOP
IF OVERLAPS ARE ACTIVE ¦
OR        PHASES:¦12345678910111213141516
IF PHASES ARE ON ¦ X
OMIT PHASES      ¦X
CALL PHASES      ¦   X
```

BACKUP PROTECTION PROGRAMMING COMPLETE

INPUT FILE POSITION LAYOUT

▽ *(front view)*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
FILE "I" U	SLOT EMPTY	ø1 1A	ø2 2A	SLOT EMPTY	SLOT EMPTY	ø4 4A	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	NOT USED	SLOT EMPTY	FS DC ISOLATOR
L		ø6 1A	ø2 2B			ø4 4B						ø4 PED DC ISOLATOR		ST DC ISOLATOR
FILE "J" U	SLOT EMPTY	ø2 5A	ø6 6A	SLOT EMPTY	ø8 8A	ø8 8B	SYS S9	SLOT EMPTY	SYS S11	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY
L		ø5 5A	ø6 6B		NOT USED	ø8 8C	SYS S10		SYS S12					

EX.: 1A, 2A, ETC. = LOOP NO.'S ▽

FS = FLASH SENSE
ST = STOP TIME

INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT ASSIGNMENT NO.	DETECTOR NO.	NEMA PHASE	CALL	EXTEND	FULL TIME DELAY	STRETCH TIME	DELAY TIME
▽ 1A[2]	TB2-5,6	I2U	39	1	2	1	Y	Y			15
	TB2-7,8	I2L	43	5	12	6	Y	Y	Y		3
2A	TB2-9,10	I3U	63	25	32	2	Y	Y			
2B	TB2-11,12	I3L	76	38	42	2	Y	Y			
4A	TB4-9,10	I6U	41	3	4	4	Y	Y			3
4B	TB4-11,12	I6L	45	7	14	4	Y	Y			10
5A[1]	TB3-5,6	J2U	40	2	6	2	Y	Y	Y		3
	TB3-7,8	J2L	44	6	16	5	Y	Y			15
6A	TB3-9,10	J3U	64	26	36	6	Y	Y			
▽ 6B	TB3-11,12	J3L	77	39	46	6	Y	Y			
8A	TB5-5,6	J5U	57	19	7	8	Y	Y			3
8B	TB5-9,10	J6U	42	4	8	8	Y	Y			10
8C	TB5-11,12	J6L	46	8	18	8	Y	Y			15
* S9	TB7-1,2	J7U	66	28	38	SYS					
* S10	TB7-3,4	J7L	79	41	48	SYS					
* S11	TB7-9,10	J9U	59	21	15	SYS					
* S12	TB7-11,12	J9L	61	23	17	SYS					
PED PUSH BUTTONS											
P41,P42	TB8-5,6	I12L	69	31	PED 4	4 PED					

NOTE: INSTALL DC ISOLATORS IN INPUT FILE SLOT I12

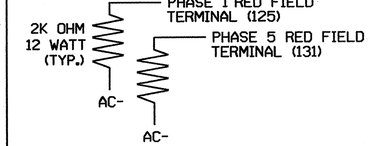
[1] DENOTES ADD JUMPERS FOR LOOP 5A FROM TB3-5 TO TB3-7, AND FROM TB3-6 TO TB3-8.

▽ [2] DENOTES ADD JUMPERS FOR LOOP 1A FROM TB2-5 TO TB2-7, AND FROM TB2-6 TO TB2-8.

*SYSTEM DETECTOR ONLY. REMOVE THE VEHICLE PHASE ASSIGNED TO THIS DETECTOR IN THE DEFAULT PROGRAMMING.

LOAD RESISTOR INSTALLATION DETAIL

▽



NOTE: THE PURPOSE OF THESE RESISTORS IS TO LOAD THE CHANNEL RED MONITOR INPUTS IN ORDER FOR THE SIGNAL SEQUENCE MONITOR TO USE THE FULL SIGNAL SEQUENCE MONITORING CAPABILITY ON CHANNELS THAT DO NOT USE THE RED DISPLAY IN THE FIELD.

INPUT FILE POSITION LEGEND: J2L
FILE J
SLOT 2
LOWER

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 13-0954
DESIGNED: 02/07/04
SEALED: 02/26/2004
▽ REVISED: 12/06/04

SIGNAL UPGRADE - FINAL

REVISION ▽ SEAL

NORTH CAROLINA PROFESSIONAL SEAL 022013 ENGINEER GEORGE C. BROWN

SIGNATURE 12/5/04 DATE

PLANS PREPARED BY :
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FOR
DIVISION OF HIGHWAYS

ELECTRICAL AND PROGRAMMING DETAILS FOR:

Prepared for the Offices of: Traffic Engineering and Safety Systems Branch, Traffic Engineering Unit, Division of North Carolina, Department of Transportation, Signals Management Section

122 N. McDowell St., Raleigh, NC 27603

NC 146 (LONG SHOALS ROAD) AT CP&L DRIVE / ENTRANCE TO "THE FOREST" APARTMENT COMPLEX

DIVISION 13 BUNCOMBE COUNTY ASHEVILLE

PLAN DATE:	JUNE 2003	REVIEWED BY:	JD DEATON
PREPARED BY:	NW YALCH	REVIEWED BY:	

REVISIONS	INIT.	DATE
▽ CHANGED FROM 3 PHASE TO A 5 PHASE SIGNAL. (JP) 02/26/04	NAP	12/5/04

SEAL

Not a certified document as to the Original Document but Only as to the Revisions - This document originally issued and sealed by JAMES O. DEATON, 07438, on 12/06/04.
This document is only certified as to the revisions.

SIGNATURE DATE

SIG. INVENTORY NO. 13-0954