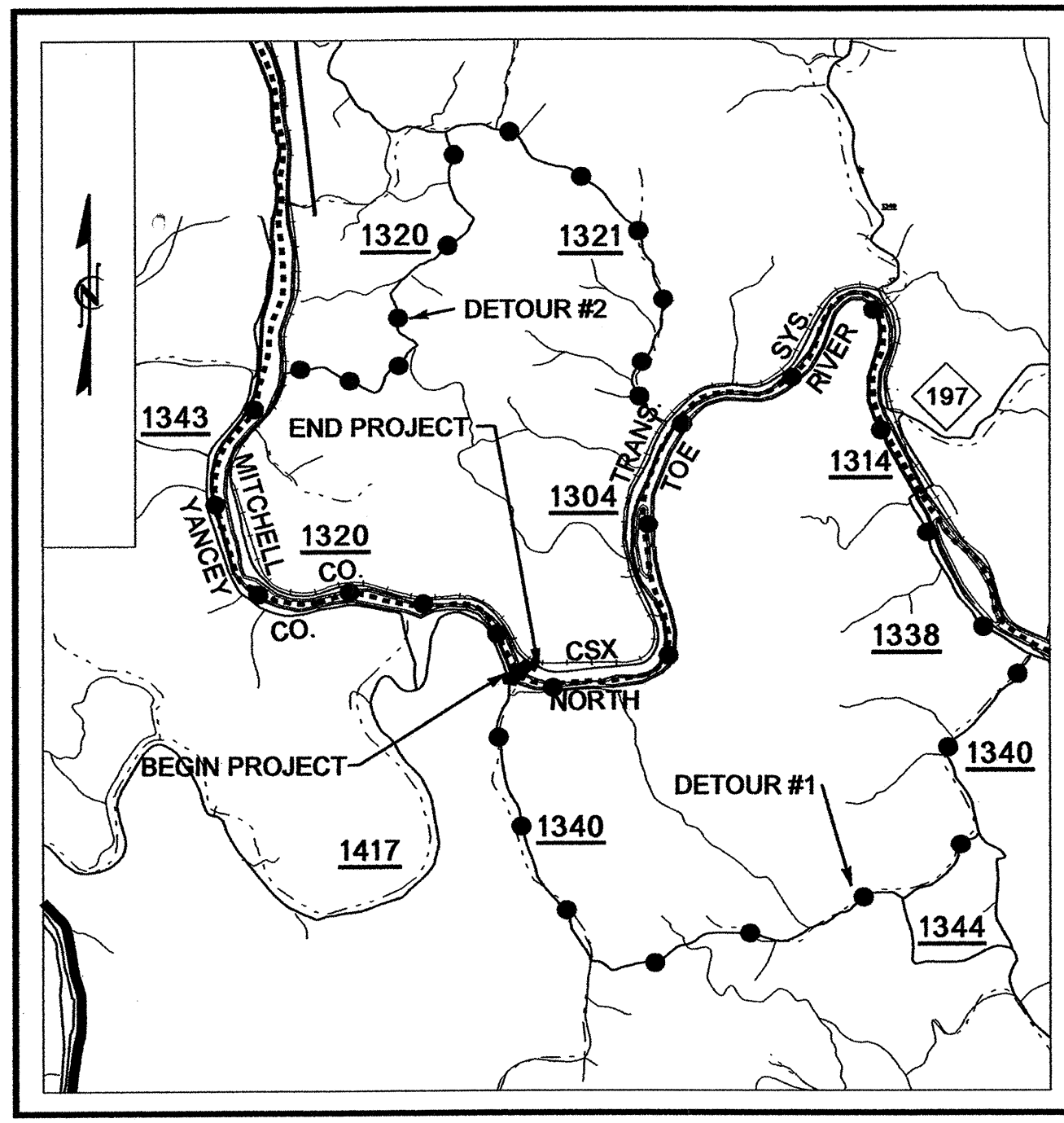


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

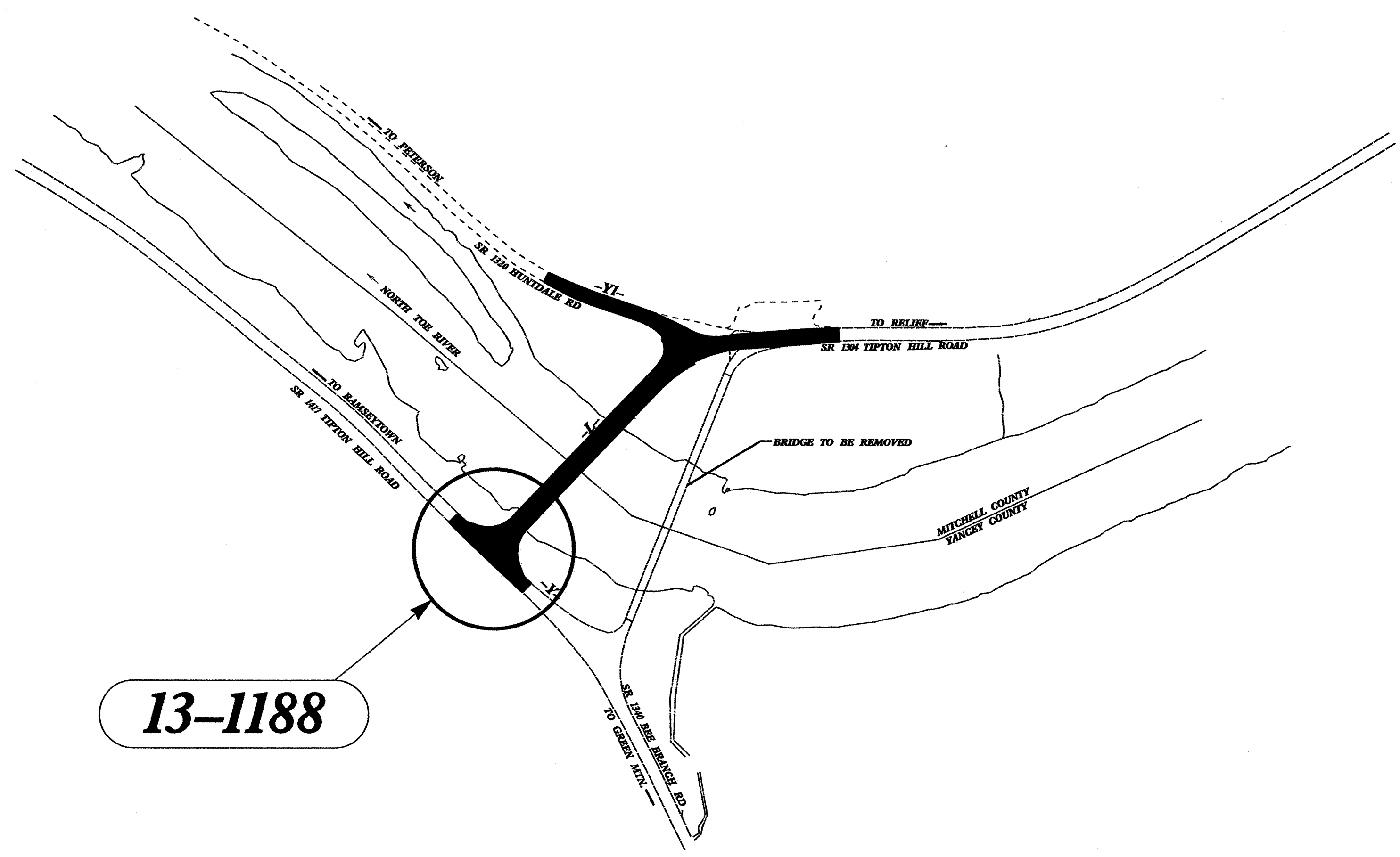
YANCEY & MITCHELL COUNTIES

Project: B-2848

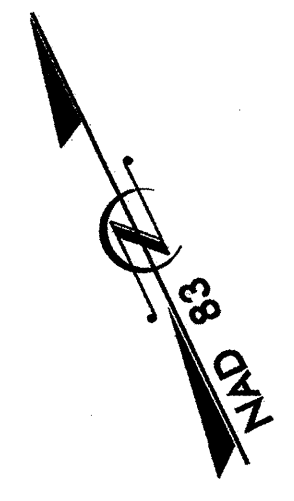
Vicinity



LOCATION: SR 1417 (Tipton Hill Road)/SR 1340 (Bee Branch Road) at Bridge #143
TYPE OF WORK: Temporary Traffic Signal



13-1188



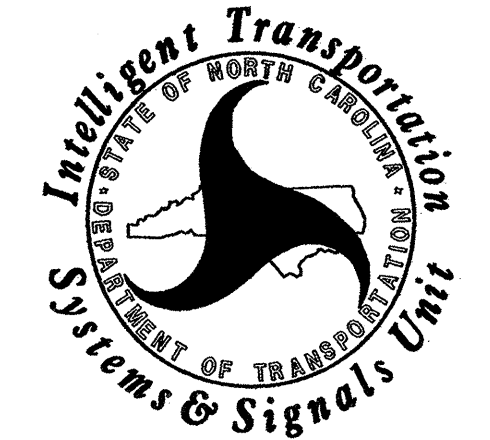
Refer to "Roadway Standard Drawings NCDOT" dated July 2006 and "Standard Specifications for Roads and Structures" dated July 2006.

Sheet #	Reference #	Index of Plans	Location/Description
Sig. 1	-----	Title Sheet	
Sig. 2	13-1188	SR 1417 (Tipton Hill Road)/SR 1340 (Bee Branch Road) at Bridge #143	

INTELLIGENT TRANSPORTATION SYSTEMS AND SIGNAL UNIT
Contacts:

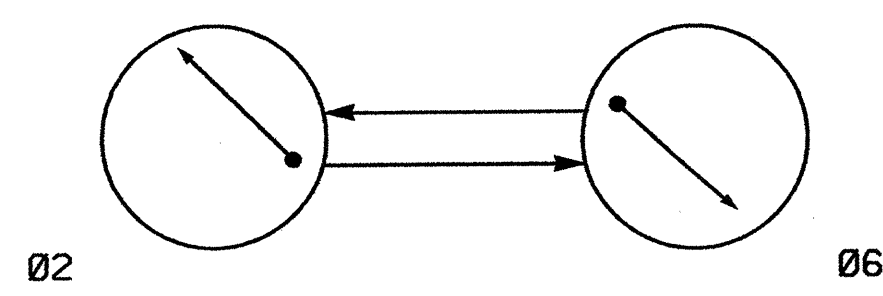
- D. Y. Ishak - Signals and Geometrics Contracts Engineer
- G. C. Brown, PE - Signal Equipment Design Engineer
- G. G. Murr, Jr., PE - Intelligent Transportation Systems Engineer

Prepared in the Office of:
DIVISION OF HIGHWAYS
TRAFFIC ENGINEERING AND SAFETY SYSTEMS
BRANCH



18-MAY-2006 15:18 sr:\issig\work\gr-1\toproc-1\lb-2848\roadway\lb2848.tsh

PHASING DIAGRAM

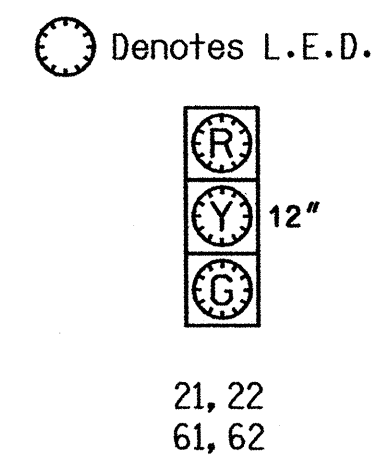


PHASING DIAGRAM DETECTION LEGEND
 ● DETECTED MOVEMENT
 ○ UNDETECTED MOVEMENT (OVERLAP)
 - - - UNSIGNALIZED MOVEMENT
 - - - PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE		
	02	06	L.CORNER
21, 22	G	R	R
61, 62	R	G	R

SIGNAL FACE I.D.



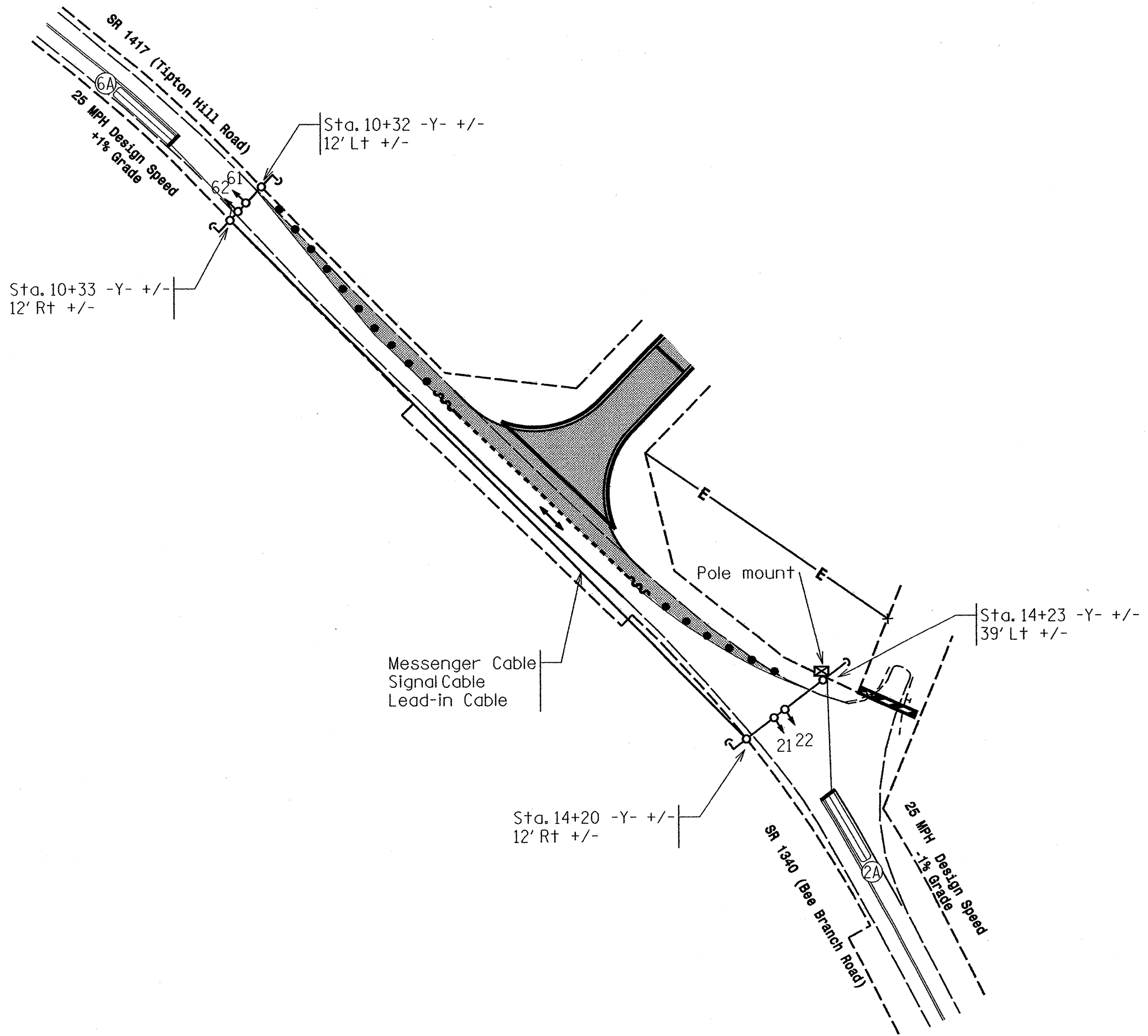
2070L LOOP & DETECTOR INSTALLATION

LOOP	SIZE (FT)	TURNS	DISTANCE FROM STOPBAR (FT)	NEW LOOP	DETECTOR PROGRAMMING							
					PHASE	CALLING	EXTENSION	FULL TIME DELAY	SYSTEM LOOP	STRETCH TIME	DELAY TIME	NEW CARD
2A	6x40	2-4-2	0	Y	2	Y	Y	-	-	-	5	Y
6A	6x40	2-4-2	0	Y	6	Y	Y	-	-	-	5	Y

2 Phase Fully Actuated (Isolated)

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated July 2006 and "Standard Specifications for Roads and Structures" dated July 2006.
2. Do not program signal for late night flashing operation.
3. Program all phases for "Red Rest."
4. Set all detector units to presence mode.

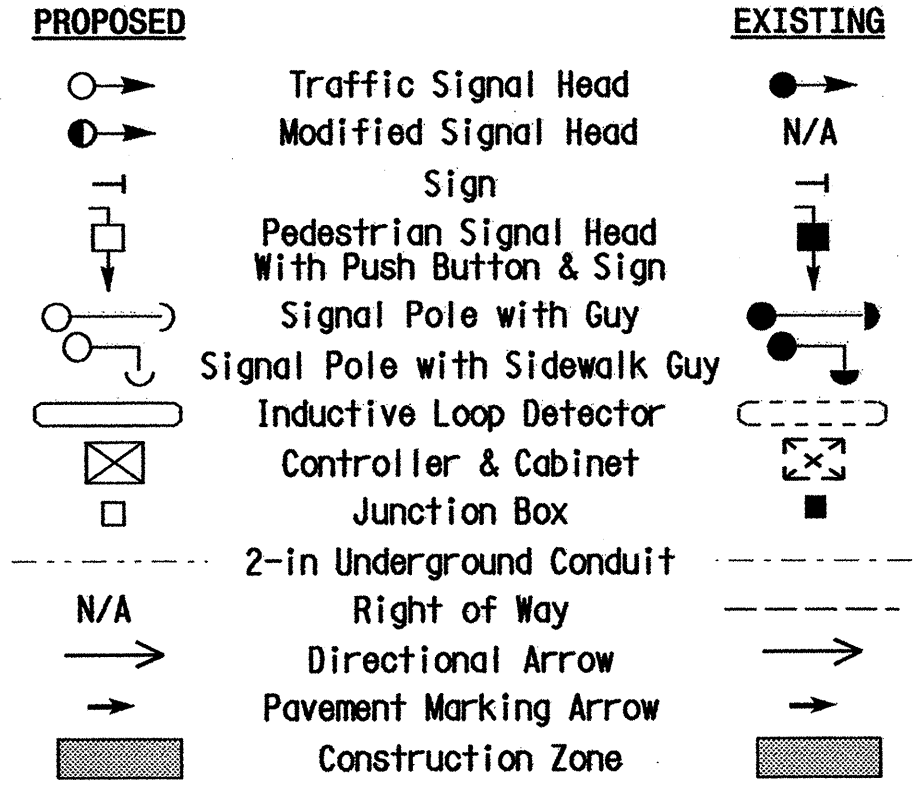


2070L TIMING CHART

FEATURE	PHASE	
	2	6
Min Green 1*	10	10
Extension 1*	3.0	3.0
Max Green 1*	45	45
Yellow Clearance	5.1	5.1
Red Clearance	15.0	15.0
Walk 1*	-	-
Don't Walk 1	-	-
Seconds Per Actuation*	-	-
Max Variable Initial*	-	-
Time Before Reduction*	-	-
Time To Reduce*	-	-
Minimum Gap	-	-
Recall Mode	-	-
Vehicle Call Memory	-	-
Dual Entry	-	-
Simultaneous Gap	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.

LEGEND



THIS PLAN SHALL SUPERSEDE THE PLAN SIGNED AND SEALED ON 3/25/04.

New Installation (Temporary)

SR 1417 (Tipton Hill Road)
 SR 1340 (Bee Branch Road)
 At Bridge #143
 Division 13 Yancey/Mitchell near Green Mountain

PLAN DATE: May 2006 REVIEWED BY: RW Duffy
 PREPARED BY: TS Thippen REVIEWED BY: [Signature]

122 N. McDowell St., Raleigh, NC 27603

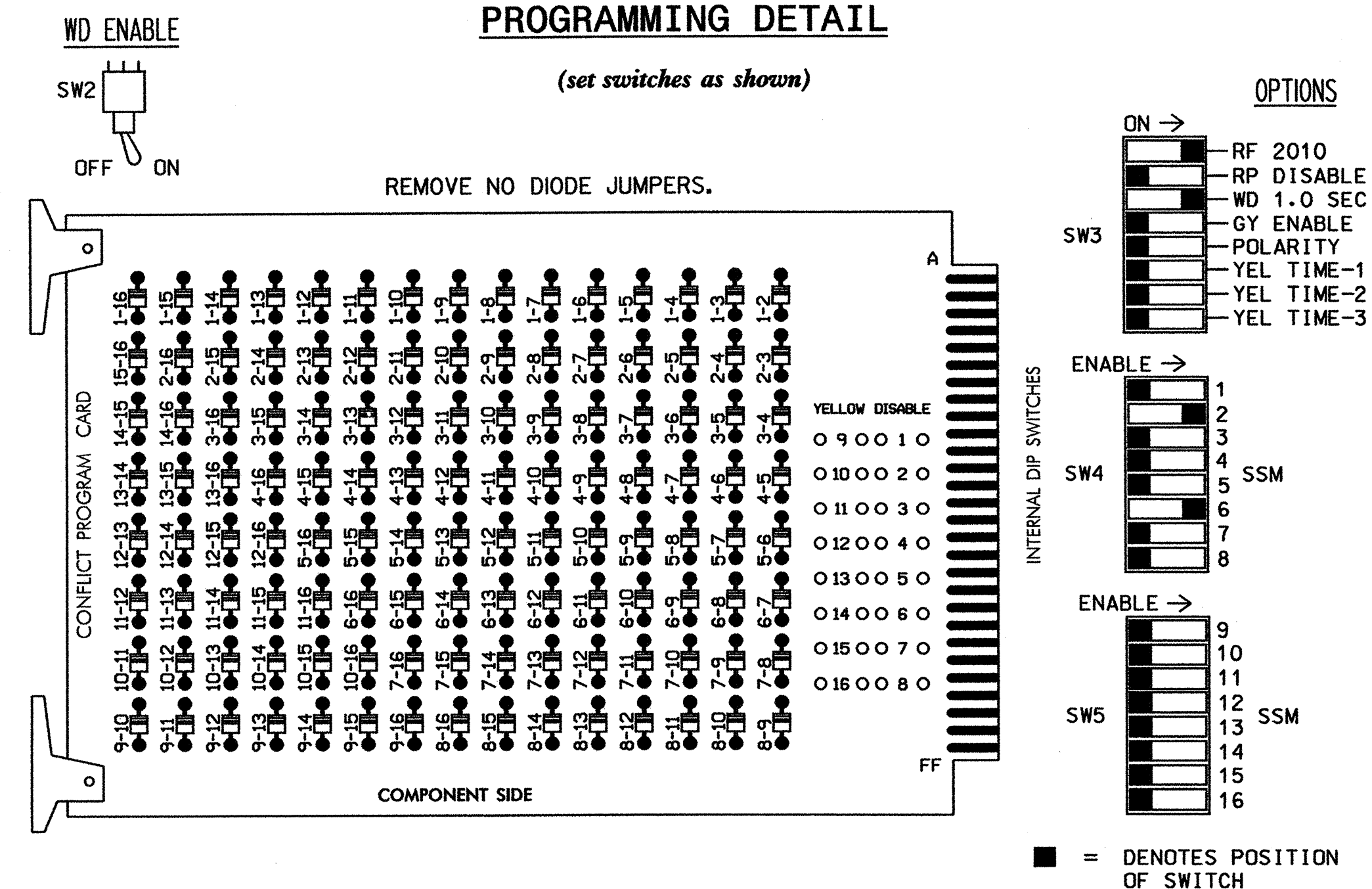
SCALE: 1" = 50'

SIGNATURE: [Signature] DATE: 9 MAY 2006
 SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER
 SIG. INVENTORY NO. 13-1188

05-MAY-2006 08:05
 11414 5 gnd 0merkg:rcouse**ip: pccj:ecteeb-2848**31188.s:q:den:20040325.dgn
 tth:open

EDI MODEL 2010ECL CONFLICT MONITOR

PROGRAMMING DETAIL



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. 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 1,3,4, 5,7,8,9,10,11,12,13,14,15 & 16 to load switch AC+ per the cabinet manufacturer's instructions.

3. Program controller to start up in phases 2 and 6 Red Clear.

4. Program all phases for "Red Rest".

5. Enable simultaneous gap-out feature, on controller unit, for all phases.

SIGNAL HEAD 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.	NU	21,22	NU	NU	NU	NU	NU	61,62	NU	NU	NU	NU
RED		128						134				
YELLOW		129						135				
GREEN		130						136				
RED ARROW												
YELLOW ARROW												
GREEN ARROW												

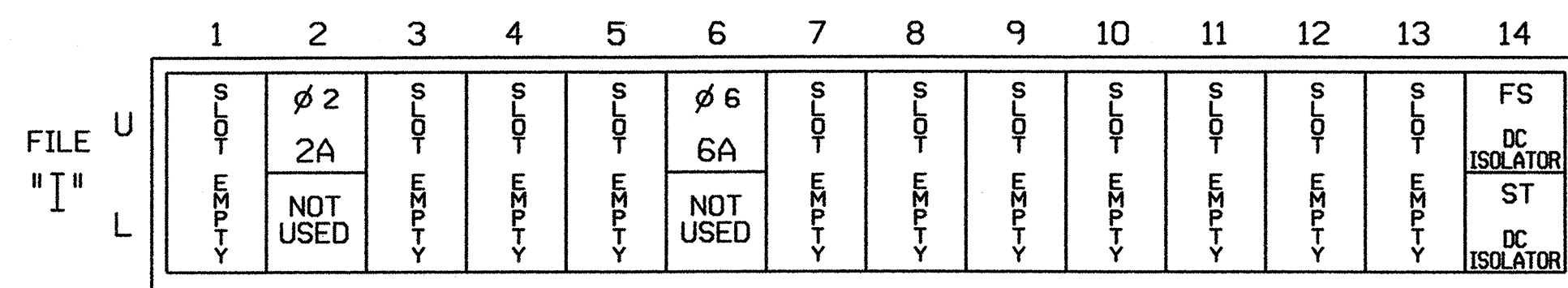
NU = Not Used

EQUIPMENT INFORMATION

CONTROLLER.....CONTRACTOR SUPPLIED 2070L
 CABINET.....CONTRACTOR SUPPLIED 336
 SOFTWARE.....ECONOLITE OASIS
 CABINET MOUNT.....POLE
 OUTPUT FILE POSITIONS...12
 LOAD SWITCHES USED.....S2,S6
 PHASES USED.....2,6
 OVERLAPS.....NONE

INPUT FILE POSITION LAYOUT

(front view)



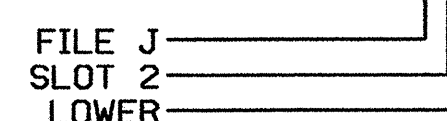
EX. : 1A, 2A, ETC. = LOOP NO.'S

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
2A	TB21-3,4	I2U	39	1	2	2	Y	Y			5
6A	TB21-11,12	I6U	40	2	6	6	Y	Y			5

INPUT FILE POSITION LEGEND: J2L

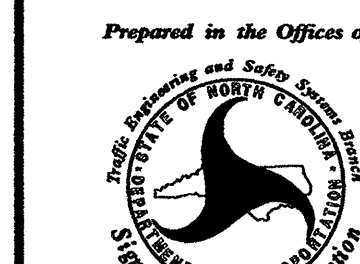


THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 13-1188
 DESIGNED: May 2006
 SEALED: 5/9/2006
 REVISED: NA

THIS DETAIL SHALL SUPERSEDE THE DETAIL SIGNED AND SEALED ON 4/26/04.

New Installation (Temporary)

ELECTRICAL AND PROGRAMMING DETAILS FOR:



122 N. McDowell St., Raleigh, NC 27603

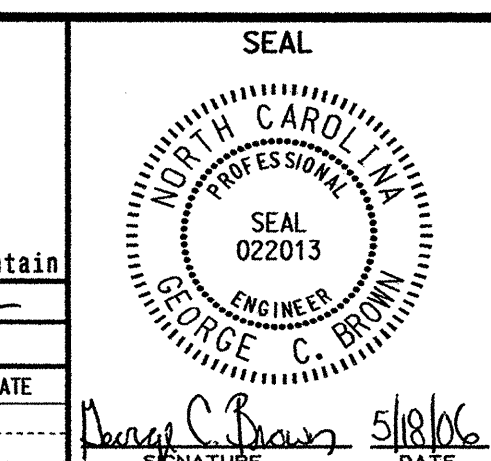
SR 1417 (Tipton Hill Road)
 SR 1340 (Bee Branch Road)
 at
 Bridge #143

Division 13 Yancey/Mitchell Near Green Mountain

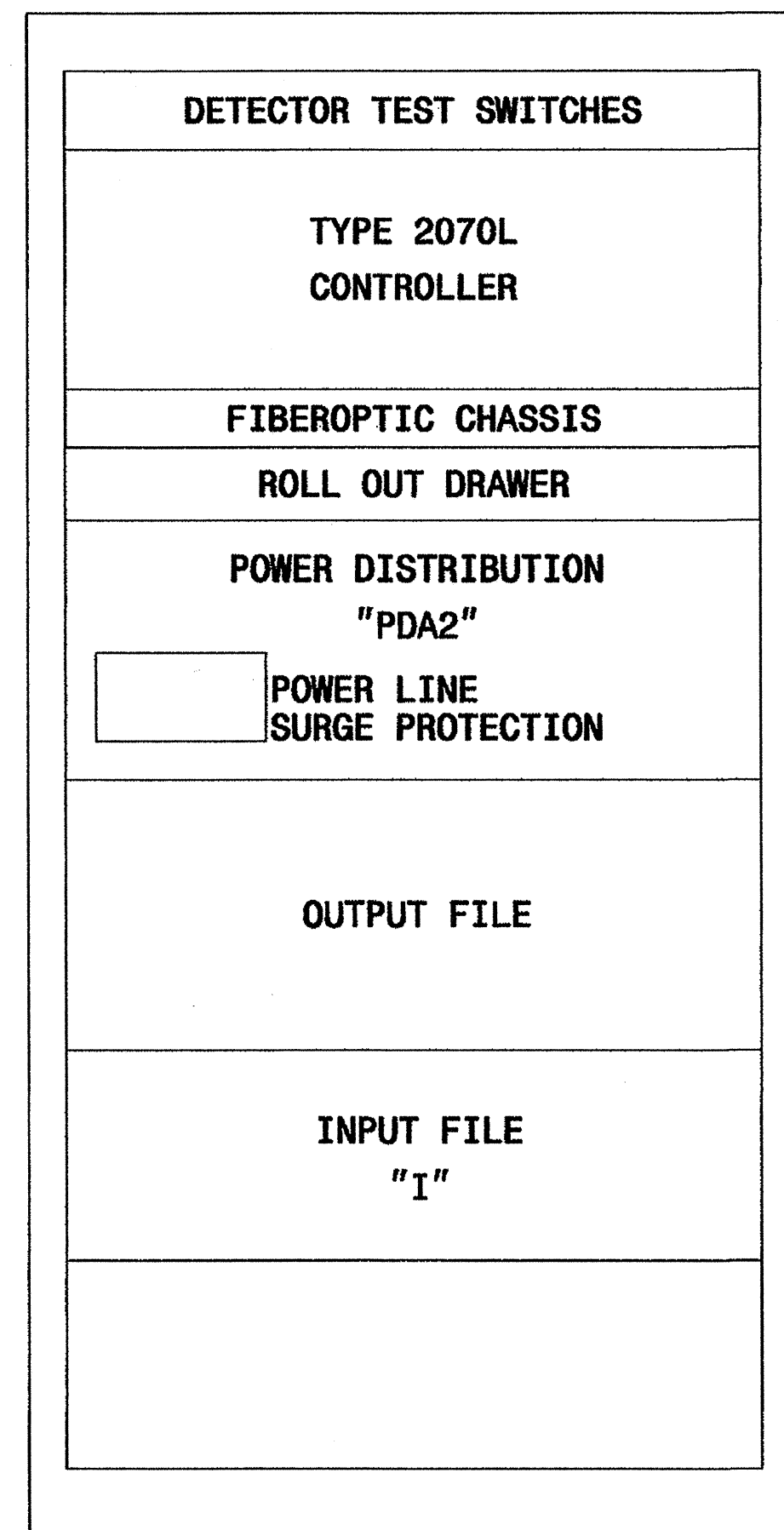
PLAN DATE: May 2006 REVIEWED BY: T. Joy

PREPARED BY: A. Masiewicz REVIEWED BY:

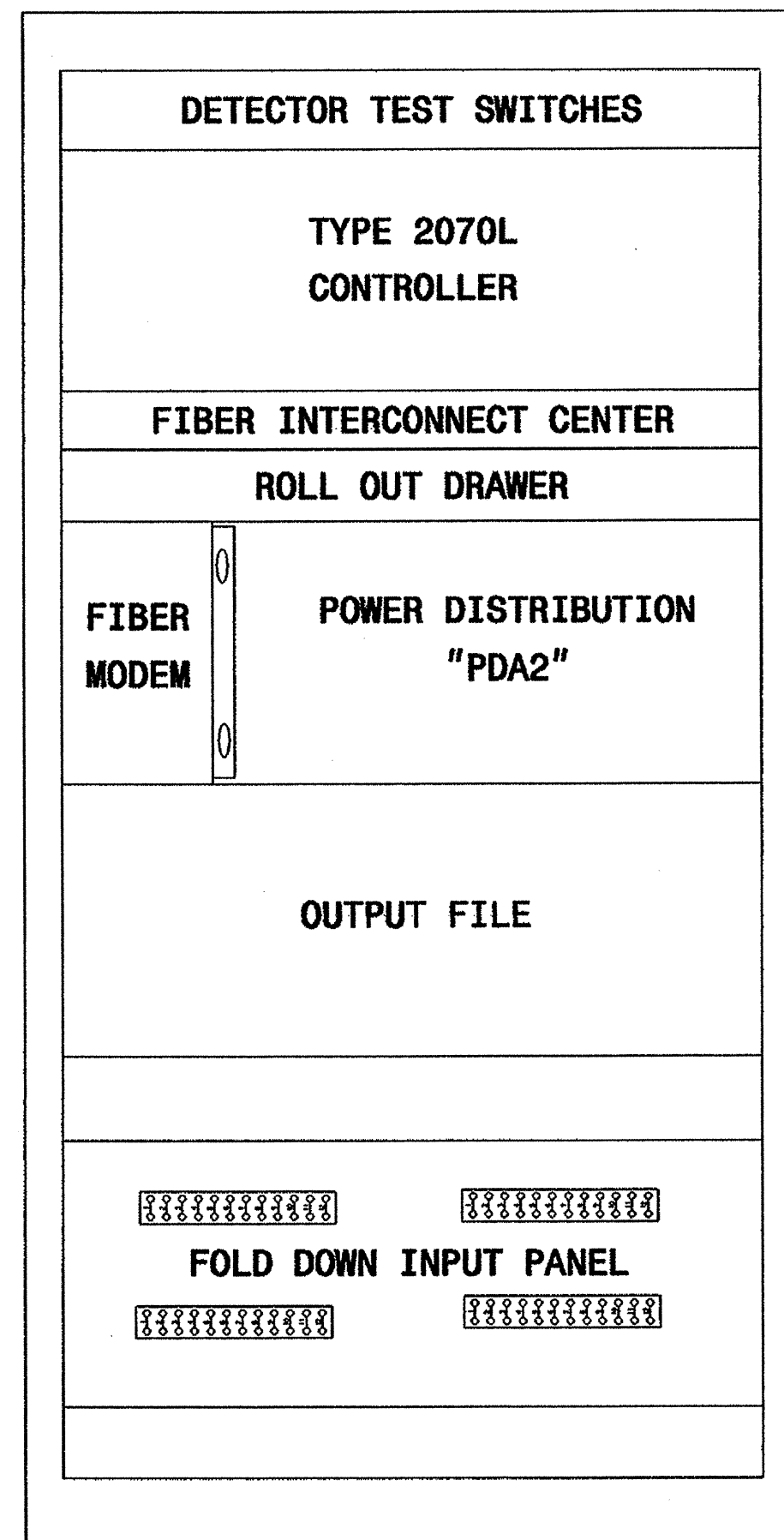
REVISIONS INIT. DATE



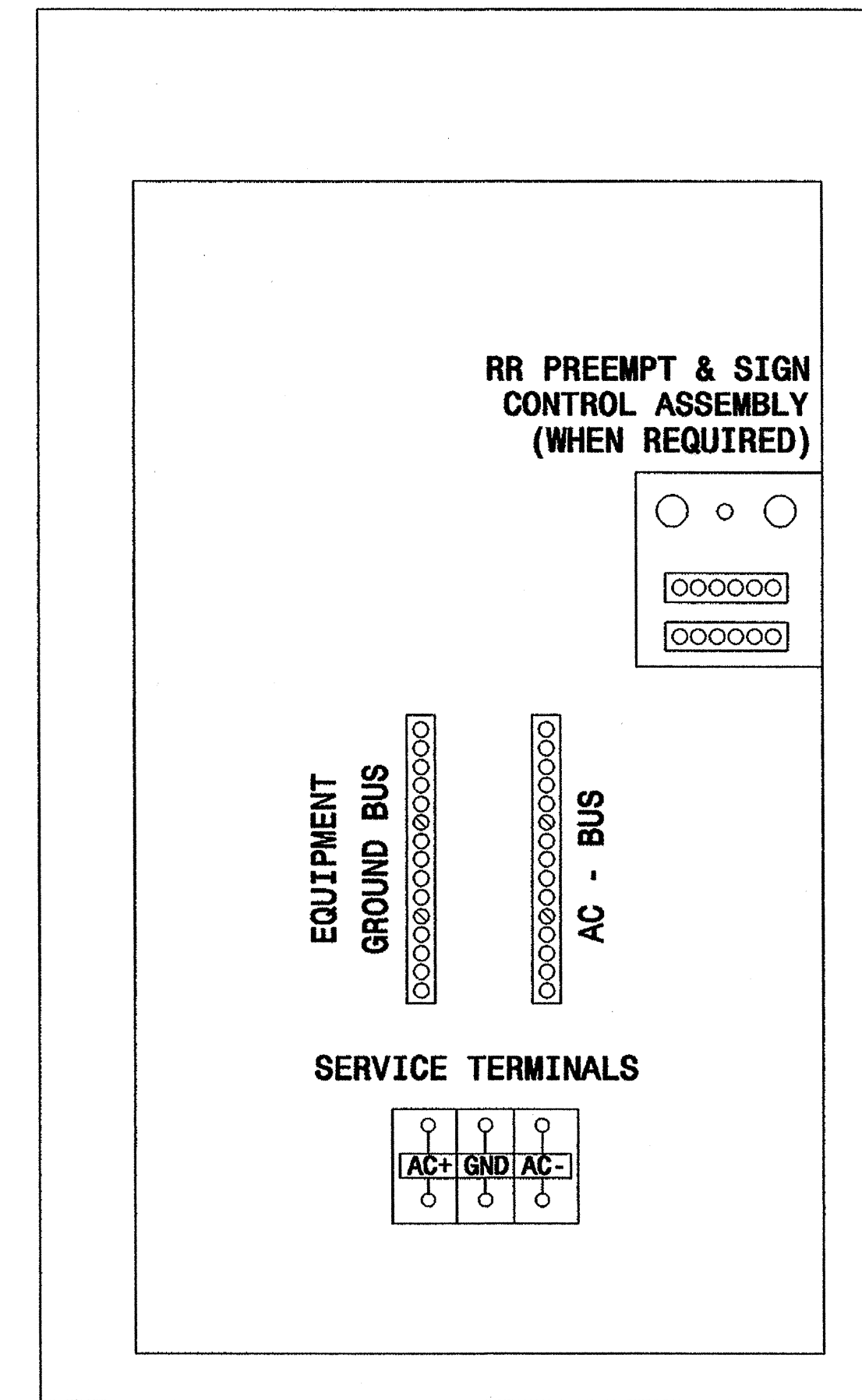
SIG. INVENTORY NO. 13-1188



336S CABINET
FRONT VIEW



336S CABINET
REAR VIEW



336S CABINET
REAR VIEW
RIGHT SIDE

NOTES

- PROVIDE A 2 " SPACE BETWEEN THE CONTROLLER AND THE ROLL OUT DRAWER TO ACCOMMODATE A FIBER INTERCONNECT CENTER.
- INSTALL POWER LINE SURGE PROTECTION INSIDE POWER DISTRIBUTION ASSEMBLY.

Typical Drawing

	Prepared in the Office of: Cabinet Component Layout 170 Cabinet Model 336S with 2070L Controller		SEAL
	PLAN DATE: October 2002 PREPARED BY: P L Alexander	REVIEWED BY: REVIEWED BY:	
REVISIONS			INIT. DATE DATE
222 N. McDowell St., Raleigh, NC 27603			SIGNATURE: <i>Milton L. Dean</i> 11/13/02 DATE:
SIG. INVENTORY NO.			NA