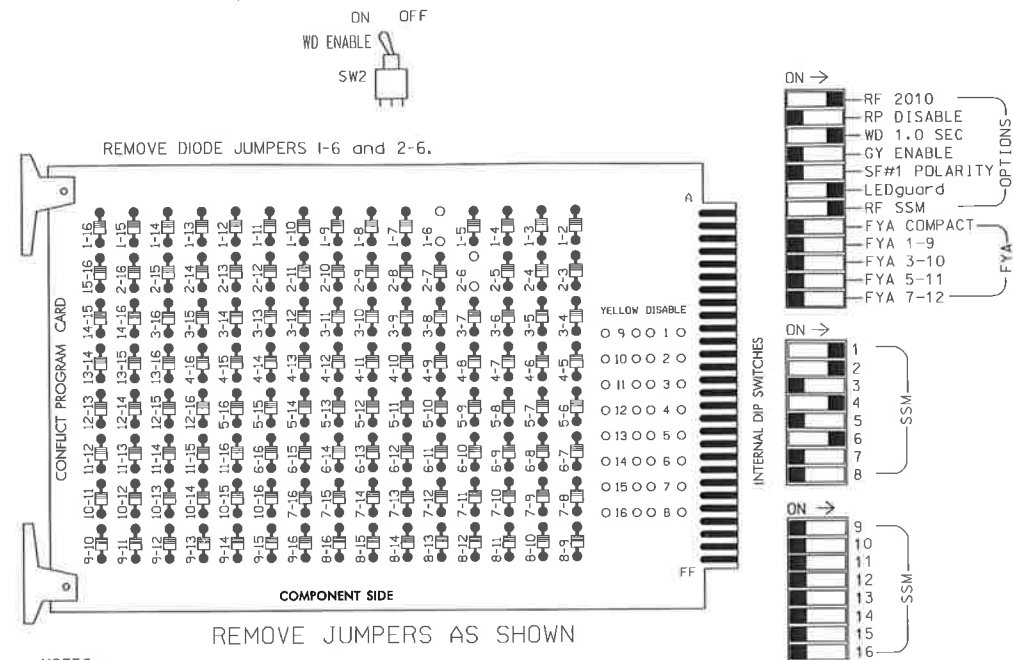


EDI MODEL 2010ECL-NC CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)



NOTES:

- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
- Make sure jumpers SEL2-SEL5 are present on the monitor board.

NOTES

- 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.
- 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 3,5,7, 8,9,10,11,12,13,14,15 & 16 to load switch AC+ per the cabinet manufacturer's instructions.
- Enable Simultaneous Gap-Out for all phases.
- Program phases 2 and 6 for Variable Initial and Gap Reduction.
- Program phases 2 and 6 for Start Up In Green.
- Program phases 2 and 6 for Yellow Flash.

EQUIPMENT INFORMATION

CONTROLLER.....2070L
 CABINET.....332
 SOFTWARE.....ECONOLITE OASIS
 CABINET MOUNT.....BASE
 OUTPUT FILE POSITIONS...12
 LOAD SWITCHES USED.....S1,S2,S4,S6
 PHASES USED.....1,2,4,6
 OVERLAPS.....NONE

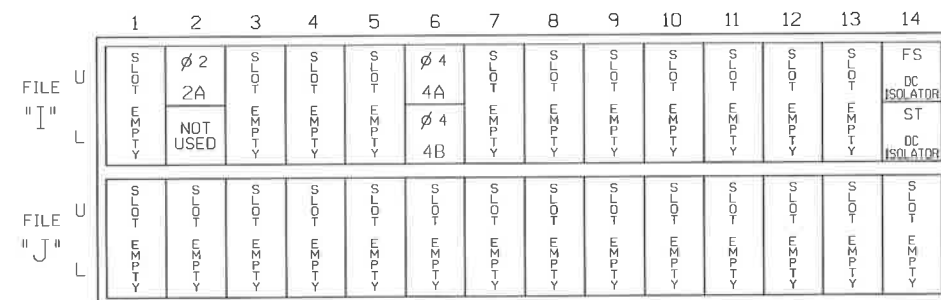
SIGNAL HEAD HOOK-UP CHART

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.	61	21,22	NU	NU	41,42	NU	NU	61,62	NU	NU	NU	NU
RED	*	128			101			134				
YELLOW		129			102			135				
GREEN		130			103			136				
RED ARROW												
YELLOW ARROW	126											
GREEN ARROW	127											

NU = Not Used
 * Denotes install load resistor. See load resistor installation detail this sheet.

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	TB2-5,6	12U	39	1	2	2	Y	Y	-	-	-
4A	TB4-9,10	16U	41	3	4	4	Y	Y	-	-	5
4B	TB4-11,12	16L	45	7	14	4	Y	Y	-	-	10

INPUT FILE POSITION LEGEND: J2L

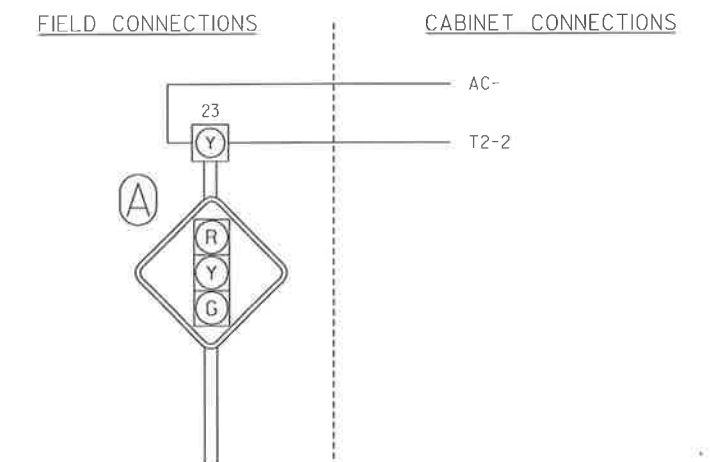


SPECIAL DETECTOR NOTE

Install a loop emulation detection system for vehicle detection. Perform installation according to manufacturer's directions and NCDOT engineer-approved mounting locations to accomplish the detection schemes shown on the Signal Design Plans.

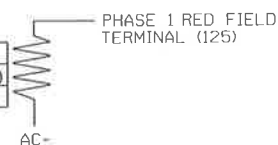
FLASHER WIRING DETAIL

(wire flasher as shown below)



LOAD RESISTOR INSTALLATION DETAIL

ACCEPTABLE VALUES	
VALUE (ohms)	WATTAGE
1.5K - 1.9K	25W (min)
2.0K - 3.0K	10W (min)



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.

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 05-0721T1
 DESIGNED: May 2015
 SEALED:
 REVISED:

Project #: 15-402

HOME OFFICE:
 305 WEST FOURTH STREET, SUITE 2A
 WINSTON-SALEM, NC 27101
 336.744.1636 www.davenportworld.com
 NCBELS FIRM LICENSE NO. C-2522

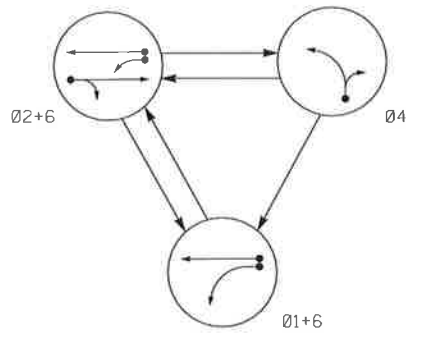
Signal Upgrade - Temporary Phase 1

	ELECTRICAL AND PROGRAMMING DETAILS FOR:		SR 1004 (Old Oxford Road) at SR 1634 (Hamlin Road) / Carver Street		SEAL PRELIMINARY DO NOT USE FOR CONSTRUCTION
	Division 5	Durham County	Durham	Durham	
	PLAN DATE: May 2015	REVIEWED BY:	PREPARED BY: R. Hinchew	REVIEWED BY:	
	REVISIONS	INIT.	DATE	SIGNATURE	

SIG. INVENTORY NO. 05-0721T1

3 Phase
Fully Actuated
(Isolated)

PHASING DIAGRAM

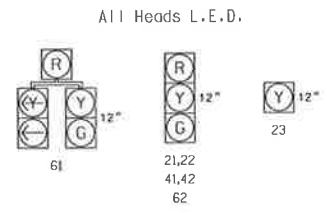


PHASING DIAGRAM DETECTION LEGEND
 ● DETECTED MOVEMENT
 ○ UNDETECTED MOVEMENT (OVERLAP)
 ○ UNSIGNALIZED MOVEMENT
 ○ PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE			
	Ø 1 + 6	Ø 2 + 6	Ø 4	Ø 1 + 6
21,22	R	G	R	Y
41,42	R	R	G	R
61	G	G	R	Y
62	G	G	R	Y

SIGNAL FACE	INTERVAL	
	1	2
23	ON	OFF

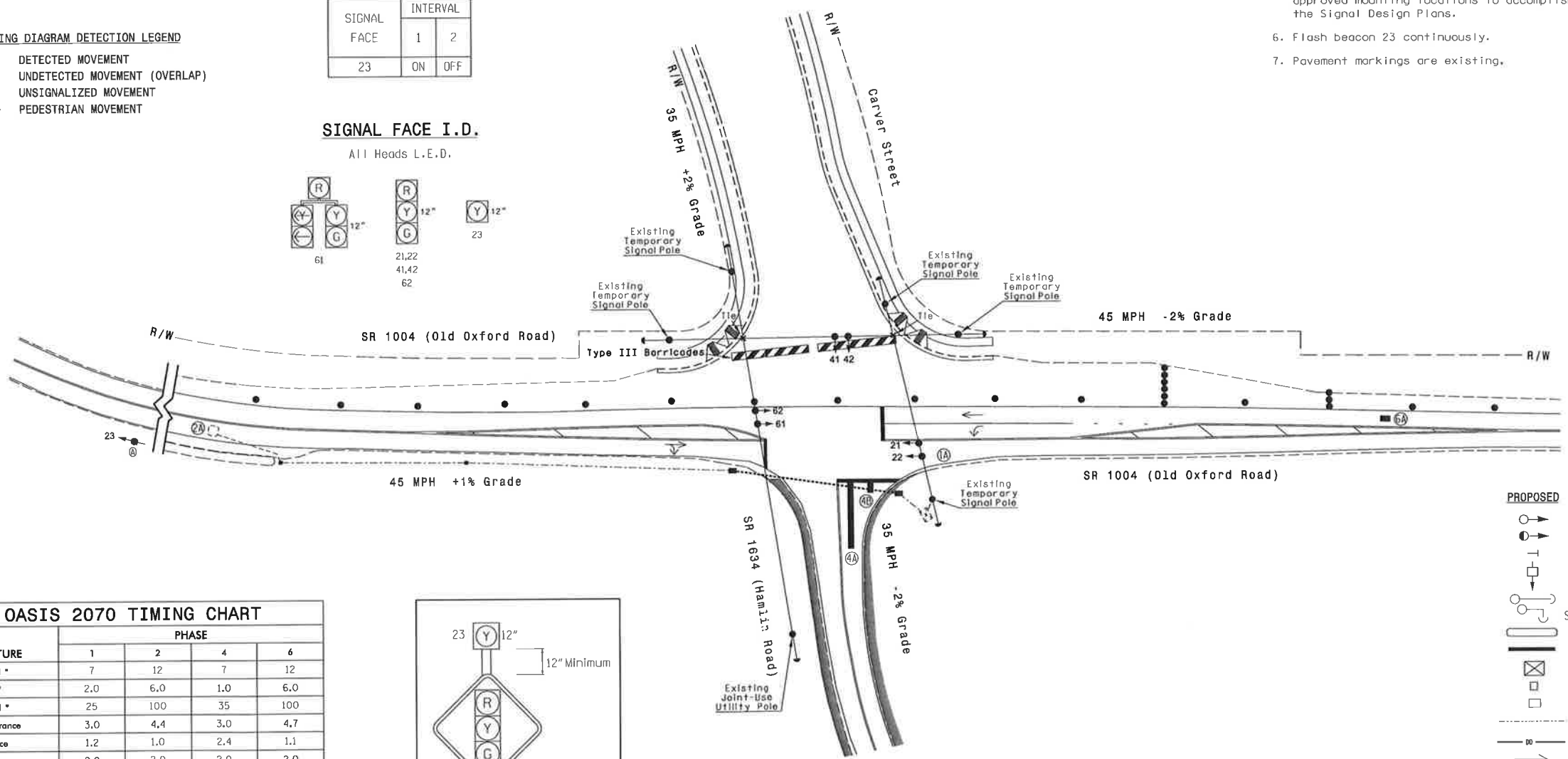
SIGNAL FACE I.D.



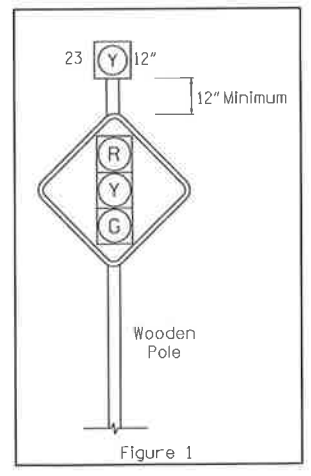
OASIS 2070L LOOP & DETECTOR INSTALLATION

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING				SYSTEM LOOP	NEW CARD	
					PHASE	CALLING EXTENSION	STRETCH TIME	DELAY TIME			
1A	6x40	0	*	*	1	Y	Y	-	15	-	*
2A	6x6	330	5	Y	2	Y	Y	-	-	-	-
4A	6x40	0	*	*	4	Y	Y	-	-	-	*
4B	6x6	0	*	*	4	Y	Y	-	10	-	*
6A	6x6	300	*	*	6	Y	Y	-	-	-	*

* Video Detection Zone



FEATURE	PHASE			
	1	2	4	6
Min Green 1 *	7	12	7	12
Extension 1 *	2.0	6.0	1.0	6.0
Max Green 1 *	25	100	35	100
Yellow Clearance	3.0	4.4	3.0	4.7
Red Clearance	1.2	1.0	2.4	1.1
Red Revert	2.0	2.0	2.0	2.0
Walk 1 *	-	-	-	-
Don't Walk 1	-	-	-	-
Seconds Per Actuation *	-	2.0	-	2.0
Max Variable Initial *	-	38	-	34
Time Before Reduction *	-	20	-	20
Time To Reduce *	-	40	-	40
Minimum Gap	-	3.5	-	3.0
Recall Mode	-	MIN RECALL	-	MIN RECALL
Vehicle Call Memory	-	YELLOW	-	YELLOW
Dual Entry	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON



PROPOSED	EXISTING
○ Traffic Signal Head	○ Traffic Signal Head
○ Modified Signal Head	N/A
○ Sign	○ Sign
○ Pedestrian Signal Head With Push Button & Sign	○ Pedestrian Signal Head With Push Button & Sign
○ Signal Pole with Guy	○ Signal Pole with Guy
○ Signal Pole with Sidewalk Guy	○ Signal Pole with Sidewalk Guy
○ Inductive Loop Detector	○ Inductive Loop Detector
○ Video Detection Area	○ Video Detection Area
○ Controller & Cabinet	○ Controller & Cabinet
○ Junction Box	○ Junction Box
○ Oversize Junction Box	○ Oversize Junction Box
○ 2-in Underground Conduit	○ 2-in Underground Conduit
○ Directional Drill	○ Directional Drill
○ Directional Arrow	○ Directional Arrow
○ Construction Zone	○ Construction Zone
N/A Construction Zone Drums	○ Construction Zone Drums
N/A Signal Ahead Sign (W3-3) w/ Beacon [See Figure 1]	○ Signal Ahead Sign (W3-3) w/ Beacon [See Figure 1]

Signal Upgrade - Temporary Phase 2

750 N. Greenfield Pkwy, Garner, NC 27529

SR 1004 (Old Oxford Road)
at
SR 1634 (Hamlin Road) /
Carver Street

Division 5
Durham County
Durham

PLAN DATE: May 2015
PREPARED BY: R. Hinshaw
REVIEWED BY:

SEAL

PRELIMINARY
DO NOT USE FOR CONSTRUCTION

SCALE: 1" = 40'

REVISIONS: INIT. DATE

SIGNATURE: DATE

SIG. INVENTORY NO. 05-072112

Project #: 15-402

DAVENPORT

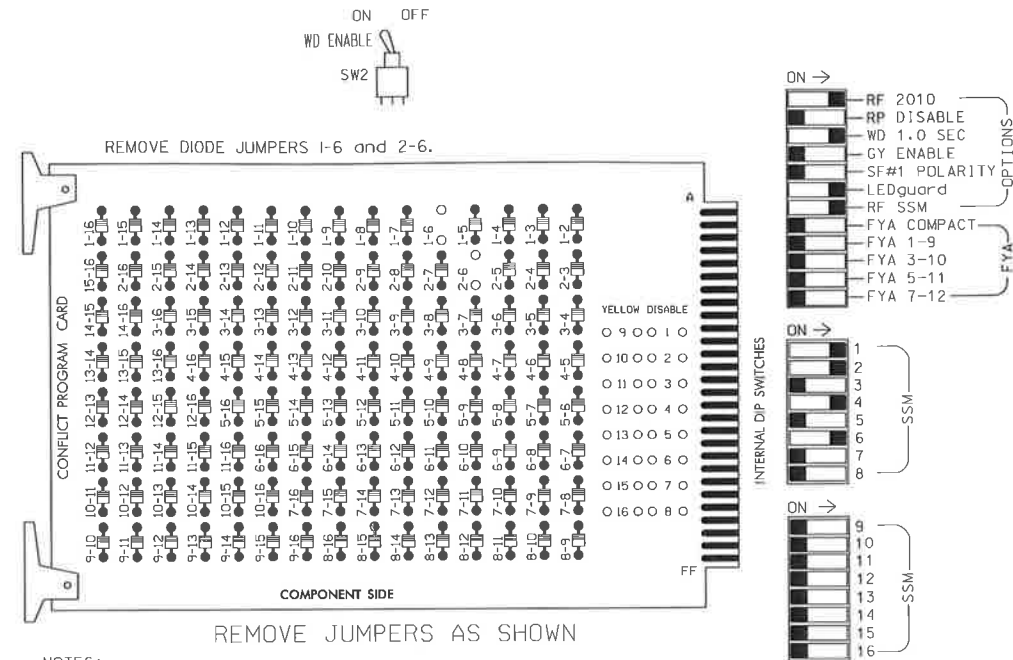
HOME OFFICE:
305 WEST FOURTH STREET, SUITE 2A
WINSTON-SALEM, NC 27101
336.744.1636 www.davenportworld.com
NCBELS FIRM LICENSE NO. C-2522

Preliminary Design 5-6-15

EDI MODEL 2010ECL-NC CONFLICT MONITOR

PROGRAMMING DETAIL

(remove jumpers and set switches as shown)



NOTES:

- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
- Make sure jumpers SEL2-SEL5 are present on the monitor board.

■ = DENOTES POSITION OF SWITCH

NOTES

- 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.
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 SOFTWARE.....ECONOLITE OASIS
 CABINET MOUNT.....BASE
 OUTPUT FILE POSITIONS...12
 LOAD SWITCHES USED.....S1,S2,S4,S6
 PHASES USED.....1,2,4,6
 OVERLAPS.....NONE

SIGNAL HEAD HOOK-UP CHART

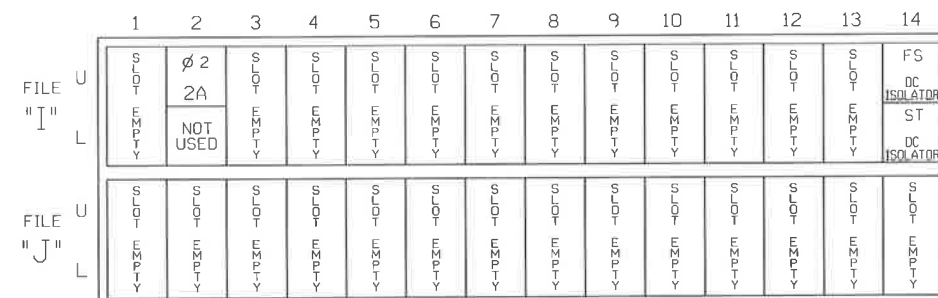
LOAD SWITCH NO.	S1	S2	S2P	S3	S4	S4P	S5	S6	S6P	S7	S8	S8P
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED
SIGNAL HEAD NO.	61	21,22	NU	NU	41,42	NU	NU	61,62	NU	NU	NU	NU
RED	*	128			101			134				
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GREEN		130			103			136				
RED ARROW												
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GREEN ARROW	127											

NU = Not Used

* Denotes install load resistor. See load resistor installation detail this sheet.

INPUT FILE POSITION LAYOUT

(front view)



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

FS = FLASH SENSE
 ST = STOP TIME

INPUT FILE CONNECTION & PROGRAMMING CHART

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2A	TB2-5,6	12U	39	1	2	2	Y	Y	-	-	-

INPUT FILE POSITION LEGEND: J2L

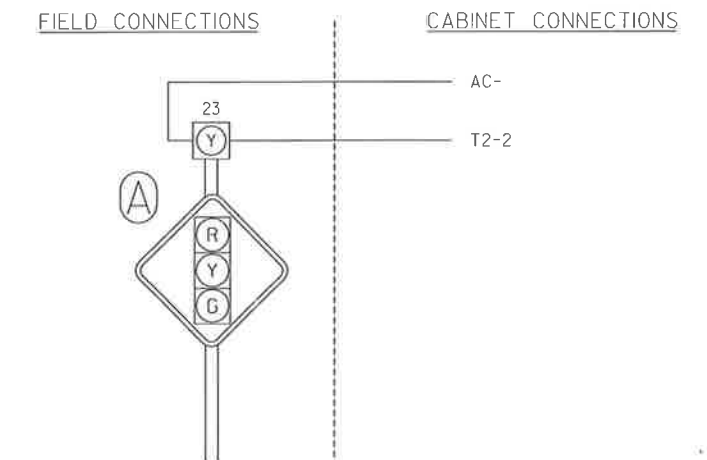


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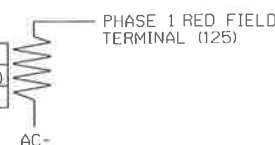
FLASHER WIRING DETAIL

(wire flasher as shown below)



LOAD RESISTOR INSTALLATION DETAIL

ACCEPTABLE VALUES	
VALUE (ohms)	WATTAGE
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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.

Project #: 15-402

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 05-0721T2
 DESIGNED: May 2015
 SEALED:
 REVISED:

DAVENPORT
 HOME OFFICE:
 305 WEST FOURTH STREET, SUITE 2A
 WINSTON-SALEM, NC 27101
 336.744.1836 www.davenportworld.com
 NCBELS FIRM LICENSE NO. C-2622

Signal Upgrade - Temporary Phase 2

ELECTRICAL AND PROGRAMMING DETAILS FOR:

SR 1004 (Old Oxford Road) at SR 1634 (Hamlin Road) / Carver Street

Division 5 Durham County Durham

PLAN DATE: May 2015 REVIEWED BY:

PREPARED BY: B. Hinshaw REVIEWED BY:

REVISIONS INIT. DATE

750 N. Greenfield Pkwy, Garner, NC 27529

SEAL

PRELIMINARY

DO NOT USE FOR CONSTRUCTION

SIGNATURE DATE

SIG. INVENTORY NO. 05-0721T2