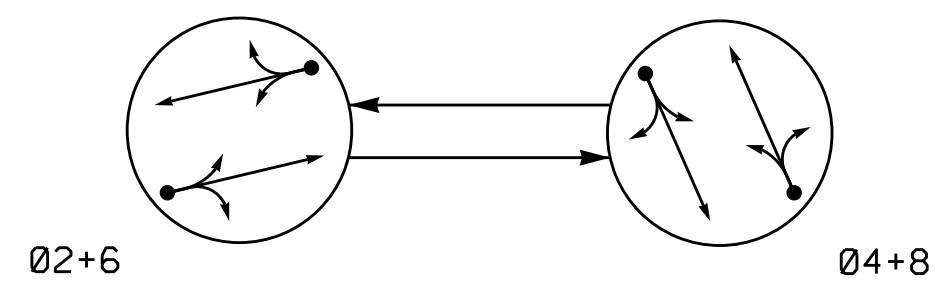


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PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

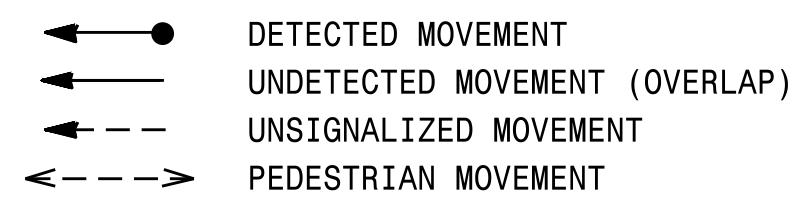
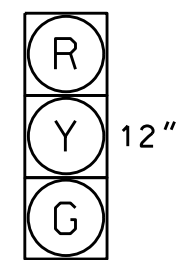


TABLE OF OPERATION

SIGNAL FACE	PHASE		
	Ø2+6	Ø4+8	FLIGHT
21, 22	G	R	Y
41, 42	R	G	R
61, 62	G	R	Y
81, 82	R	G	R

SIGNAL FACE I.D.

All Heads L.E.D.



21, 22
41, 42
61, 62
81, 82

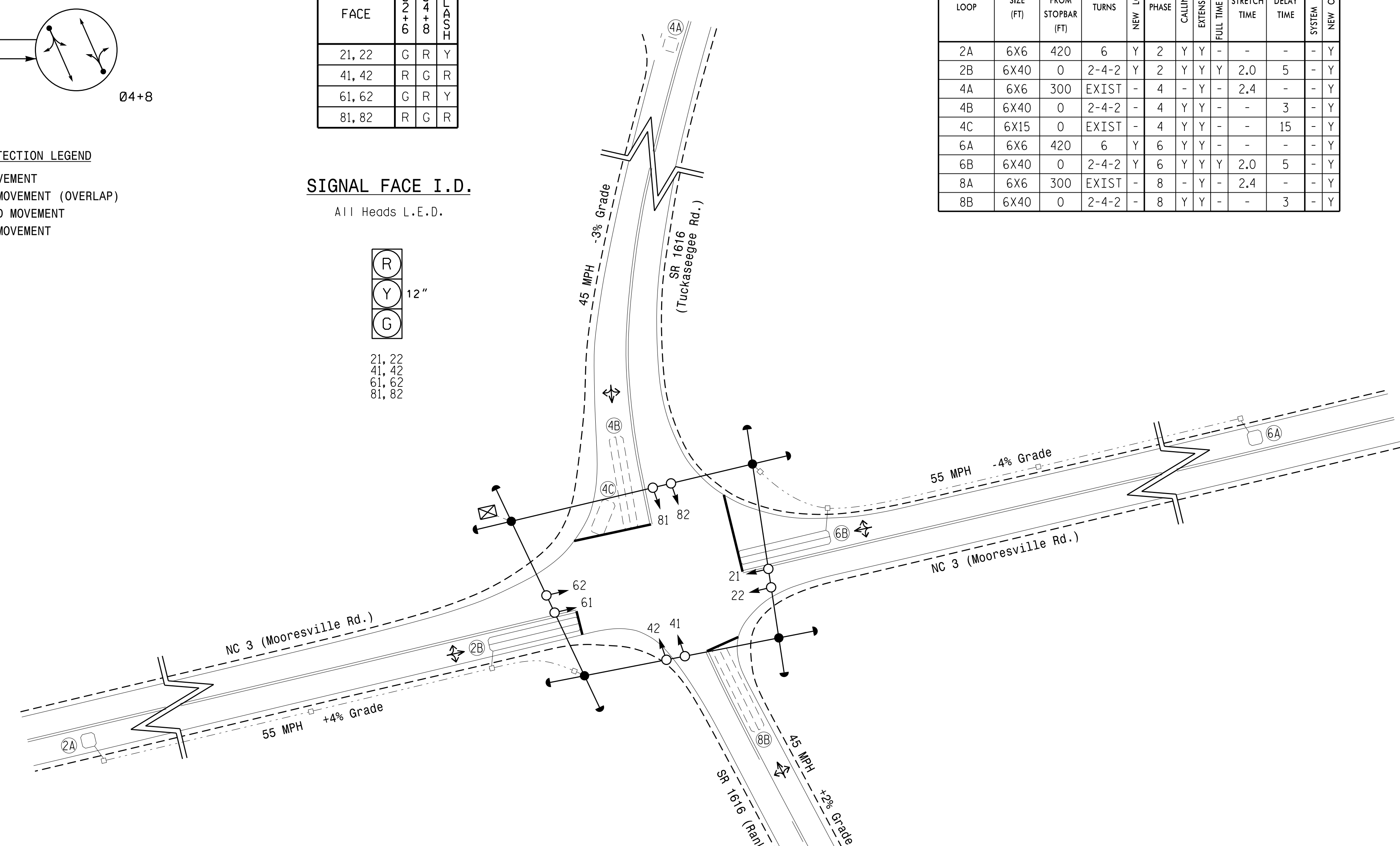
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING			STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
					PHASE	CALLING	EXTENSION FULL TIME DELAY				
2A	6X6	420	6	Y	2	Y	Y	-	-	-	Y
2B	6X40	0	2-4-2	Y	2	Y	Y	2.0	5	-	Y
4A	6X6	300	EXIST	-	4	-	Y	-	2.4	-	Y
4B	6X40	0	2-4-2	-	4	Y	Y	-	-	3	Y
4C	6X15	0	EXIST	-	4	Y	Y	-	-	15	Y
6A	6X6	420	6	Y	6	Y	Y	-	-	-	Y
6B	6X40	0	2-4-2	Y	6	Y	Y	2.0	5	-	Y
8A	6X6	300	EXIST	-	8	-	Y	-	2.4	-	Y
8B	6X40	0	2-4-2	-	8	Y	Y	-	-	3	Y

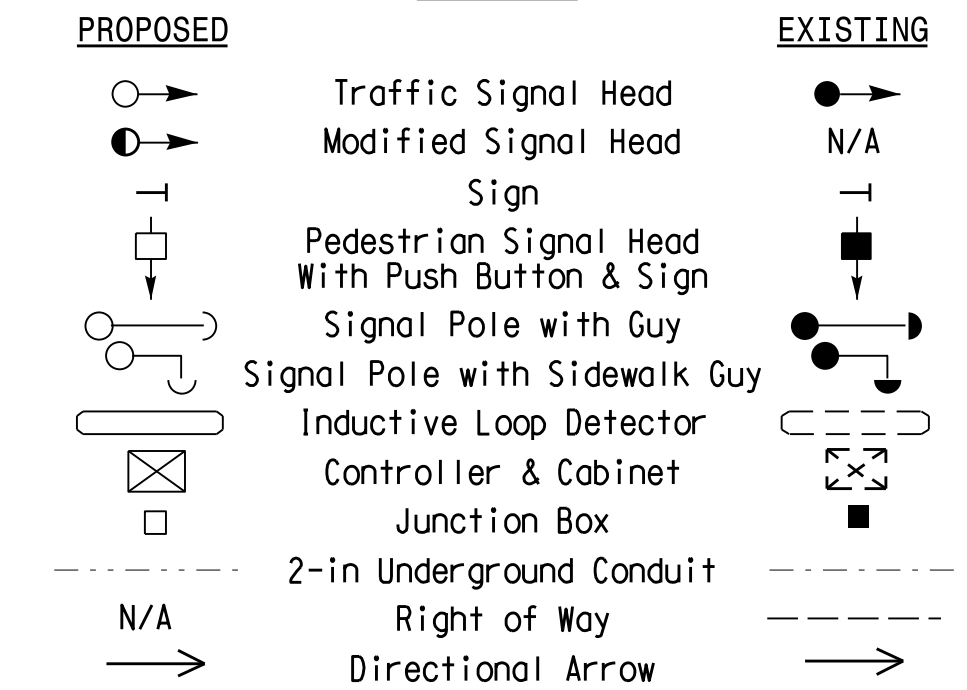
2 Phase Fully Actuated Isolated

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Remove all existing flashing beacons.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Remove existing "STOP" Signs (R1-1).



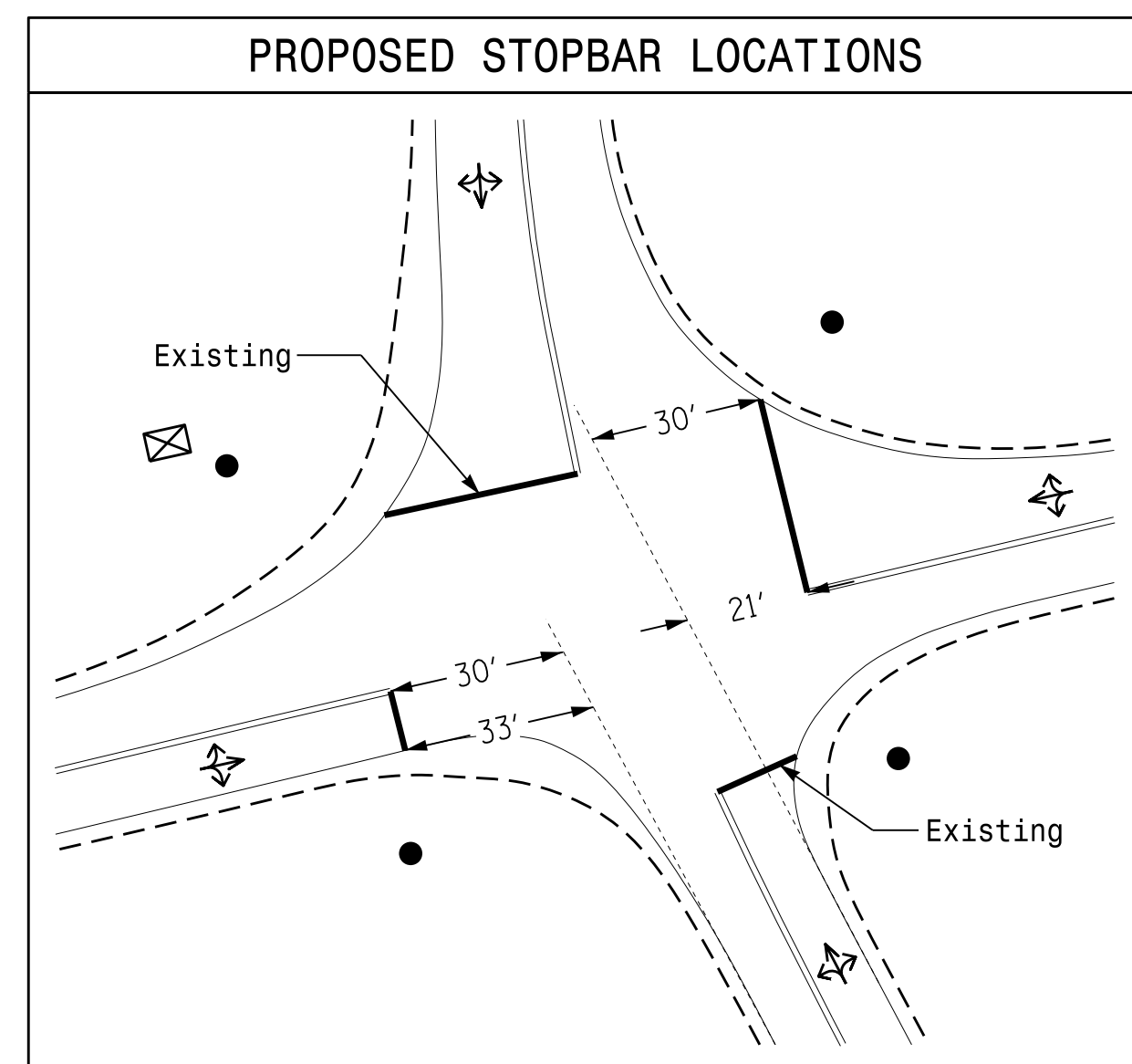
LEGEND



OASIS 2070 TIMING CHART

FEATURE	PHASE			
	2	4	6	8
Min Green 1 *	14	7	14	7
Extension 1 *	6.0	2.0	6.0	2.0
Max Green 1 *	90	45	90	45
Yellow Clearance	5.6	4.8	5.6	4.8
Red Clearance	1.0	1.0	1.0	1.0
Red Revert	2.0	2.0	2.0	2.0
Walk 1 *	-	-	-	-
Don't Walk 1	-	-	-	-
Seconds Per Actuation *	-	-	-	-
Max Variable Initial *	-	-	-	-
Time Before Reduction *	15	-	15	-
Time To Reduce *	30	-	30	-
Minimum Gap	3.4	-	3.4	-
Recall Mode	MIN RECALL	-	MIN RECALL	-
Vehicle Call Memory	-	-	-	-
Dual Entry	-	ON	-	ON
Simultaneous Gap	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.



Signal Upgrade

Prepared in the Offices of:
TRANSPORTATION MOBILITY AND SAFETY SOLUTIONS
DIVISION OF TRANSPORTATION
SIGNAL DESIGN SECTION
750 N. Greenfield Pkwy, Garner, NC 27529

NC 3 (Mooresville Rd.)
at
SR 1616 (Tuckaseegee Rd./ Rankin Rd.)
Cabarrus County, Kannapolis

Division 10
PLAN DATE: May 2016
PREPARED BY: R.N. Zinser
REVIEWED BY:

REVISIONS: _____ INIT. DATE

SCALE: 1"=30'

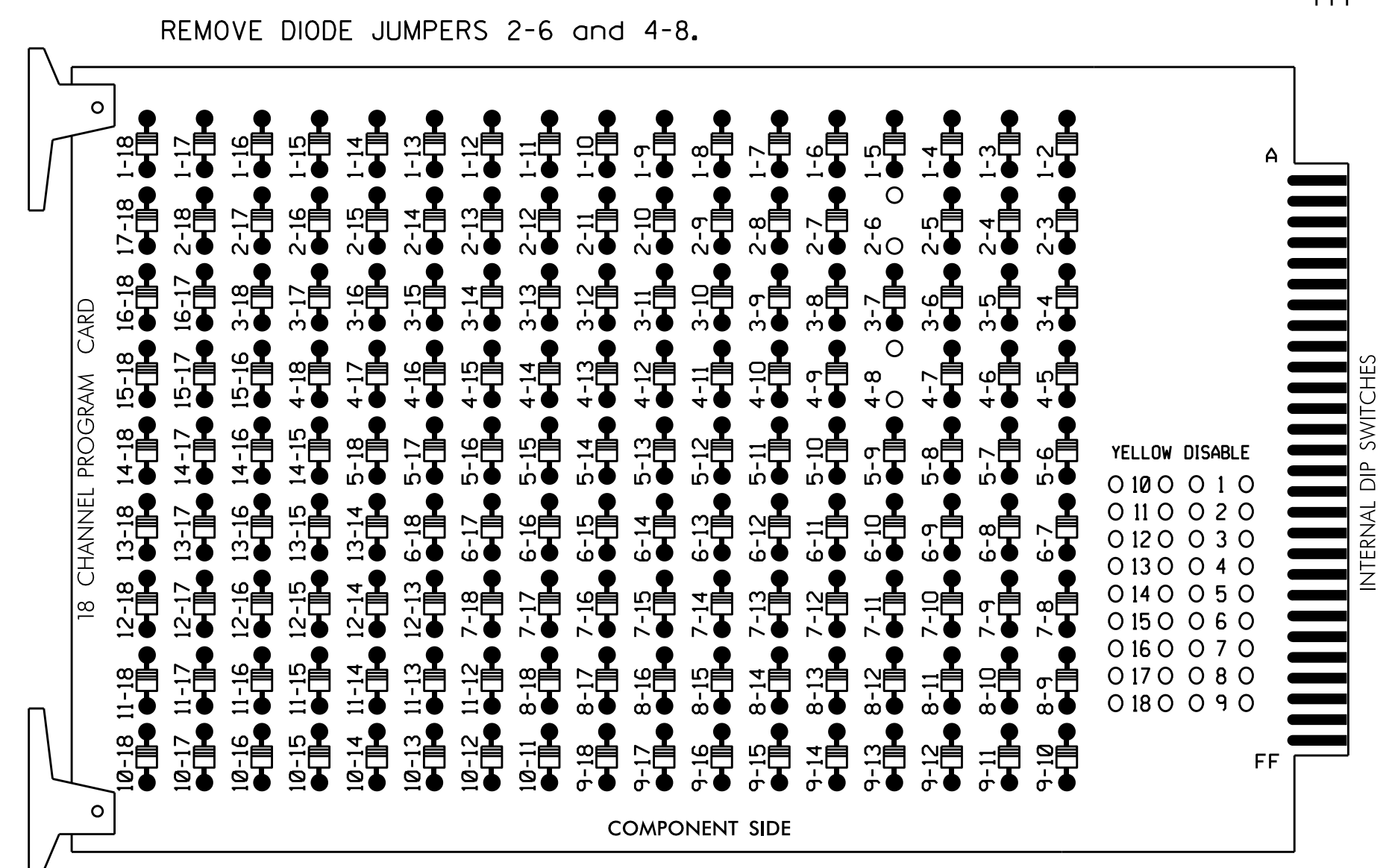
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SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
SEAL 024393
J. G. WILLIAMS
6/22/2016
DATE
SIG. INVENTORY NO. 10-2048

22-0106-2016-13-23
 S:\2016\Signal Design\Section\Western Region\04-10-2016\02048_Sig.dgn, 2016mdd.dgn
 R.N. Zinser

**EDI MODEL 2018ECL-NC CONFLICT MONITOR
PROGRAMMING DETAIL**

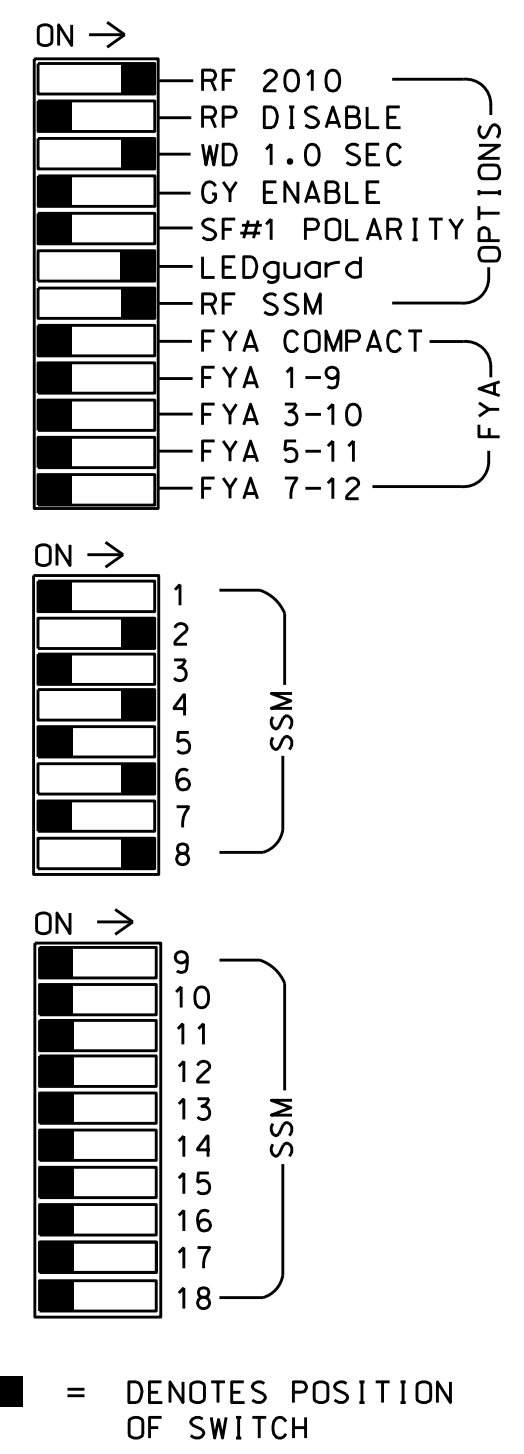
(remove jumpers and set switches as shown)



REMOVE JUMPERS AS SHOWN

NOTES:

- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
- Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
- Ensure that Red Enable is active at all times during normal operation.
- Connect serial cable from conflict monitor to comm. port 1 of 2070 controller. Ensure conflict monitor communicates with 2070.



■ = 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.
- Program phases 4 and 8 for Dual Entry.
- Enable Simultaneous Gap-Out for all phases.
- Program phases 2 and 6 for Gap Reduction.
- Program phases 2 and 6 for Start Up In Green.
- Program phases 2 and 6 for Yellow Flash.

EQUIPMENT INFORMATION

CONTROLLER.....2070
 CABINET.....332 W/ AUX
 SOFTWARE.....ECONOLITE OASIS
 CABINET MOUNT.....BASE
 OUTPUT FILE POSITIONS...18 WITH AUX. FILE
 LOAD SWITCHES USED.....S2,S5,S8,S11
 PHASES USED.....2,4,6,8
 OVERLAPS.....NONE

SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	15	7	8	16	9	10	17	11	12	18
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED	OLA	OLB	SPARE	OLC	OLD	SPARE
SIGNAL HEAD NO.	NU	21,22	NU	NU	41,42	NU	NU	61,62	NU	NU	81,82	NU	NU	NU	NU	NU	NU	NU
RED		128			101			134			107							
YELLOW		129			102			135			108							
GREEN		130			103			136			109							
RED ARROW																		
YELLOW ARROW																		
GREEN ARROW																		

NU = Not Used

INPUT FILE POSITION LAYOUT

(front view)

FILE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
U	S	∅ 2	S	S	S	∅ 4	∅ 4	S	S	S	S	S	S	FS
I	2A	∅ 2	2B	∅ 4	4A	4C	NOT USED							DC ISOLATOR
L														ST
U	S	∅ 6	S	S	S	∅ 8	S	S	S	S	S	S	S	S
J	6A	∅ 6	6B	∅ 8	8A	8B								
L														

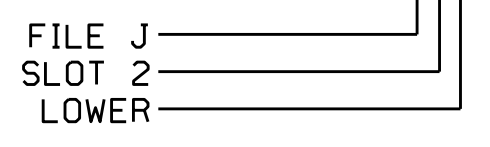
EX.: 1A, 2A, ETC. = LOOP NO.'S

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	I2U	39	1	2	2	Y	Y			
2B	TB2-7,8	I2L	43	5	12	2	Y	Y	Y	2.0	5
4A	TB4-9,10	I6U	41	3	4	4		Y		2.4	
4B	TB4-11,12	I6L	45	7	14	4	Y	Y			3
4C	TB6-1,2	I7U	65	27	34	4	Y	Y			15
6A	TB3-5,6	J2U	40	2	6	6	Y	Y			
6B	TB3-7,8	J2L	44	6	16	6	Y	Y	Y	2.0	5
8A	TB5-9,10	J6U	42	4	8	8		Y		2.4	
8B	TB5-11,12	J6L	46	8	18	8	Y	Y			3

INPUT FILE POSITION LEGEND: J2L



THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 10-2048
 DESIGNED: May 2016
 SEALED: 6/22/2016
 REVISED: N/A

Electrical Detail

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared In the Offices of:

 750 N. Greenfield Pkwy, Garner, NC 27529

NC 3 (Mooresville Road) at SR 1616 (Tuckaseegee Road/ Rankin Road)

Division 10 Cabarrus County Kannapolis

PLAN DATE: June 2016 REVIEWED BY: BAS
 PREPARED BY: S. Armstrong REVIEWED BY:

REVISIONS INIT. DATE

Seal of Keith M. Mims, Professional Engineer, No. 036880

DocuSigned by: Keith M. Mims 6/23/2016
 2F8D796EBCD3445 DATE

SIG. INVENTORY NO. 10-2048

23-june-2016 09:14 S:\TSS\15\Sigmod\work\hous\51g_MonHrMstrong\102048_sm.ele.xxx.dgn sarmstrong