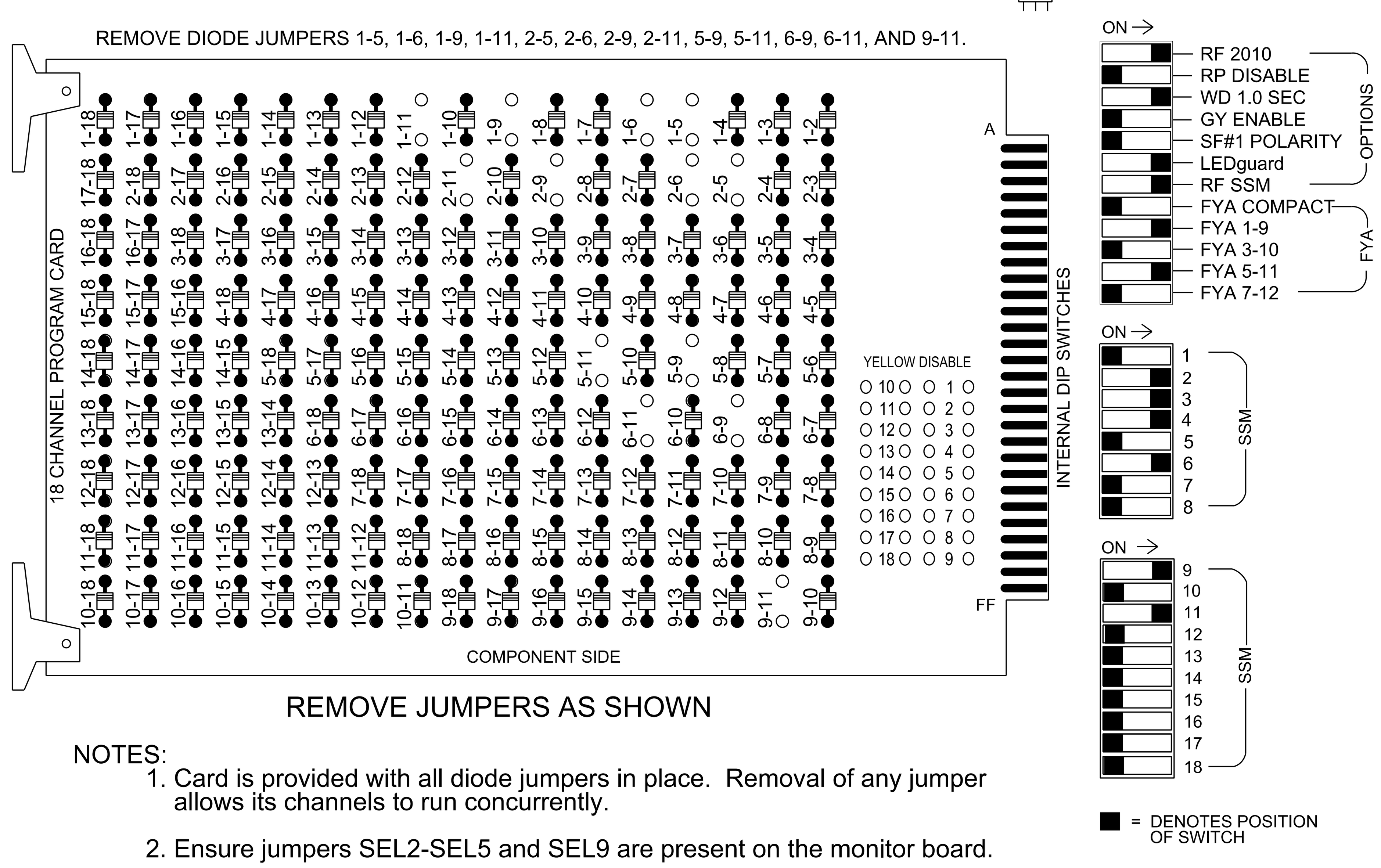
PROJECT REFERENCE NO.	SHEET NO.
R-5857	Sig. 2.1

18 CHANNEL IP CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS 1-5, 1-6, 1-9, 1-11, 2-5, 2-6, 2-9, 2-11, 5-9, 5-11, 6-9, 6-11, AND 9-11.



REMOVE JUMPERS AS SHOWN

NOTES:
1. Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
2. Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
3. Ensure that the Red Enable is active at all times during normal operation.
4. Integrate monitor with Ethernet network in cabinet.

NOTES

1. To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.
2. Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.
3. Program phases 2 and 6 for Advanced Warning.
4. Program phases 2 and 6 for 3.0 seconds Pre Clearance.
5. If this signal will be managed by an ATMS software, enable controller and detector logging for all detectors used at this location.

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	ADVANCE BEACON	3			4		4 PED	ADVANCE BEACON	5	6	6 PED	ADVANCE BEACON	7	8	8 PED	ADVANCE BEACON	OL1	OL2	OL5	OL3	OL4	OL6
SIGNAL HEAD NO.	11★	21,22,23	NU	25	31	32,33	62	41,42	43,44,45	NU	65	51★	61,62,63	NU	26	NU	NU	NU	66	11★	NU	NU	51★	NU	NU
RED		128			116	116			101				134												
YELLOW	*	129			117	117			102			*	135												
GREEN		130			118	118			103				136												
RED ARROW								101												A121			A114		
YELLOW ARROW							117	102												A122			A115		
FLASHING YELLOW ARROW																				A123			A116		
GREEN ARROW	127				118		118	103				133													
(Don't Walk symbol)																									
PED YELLOW				** 114							** 105				** 120				** 111						
(Walk symbol)			*							*				*				*							

NU = Not Used

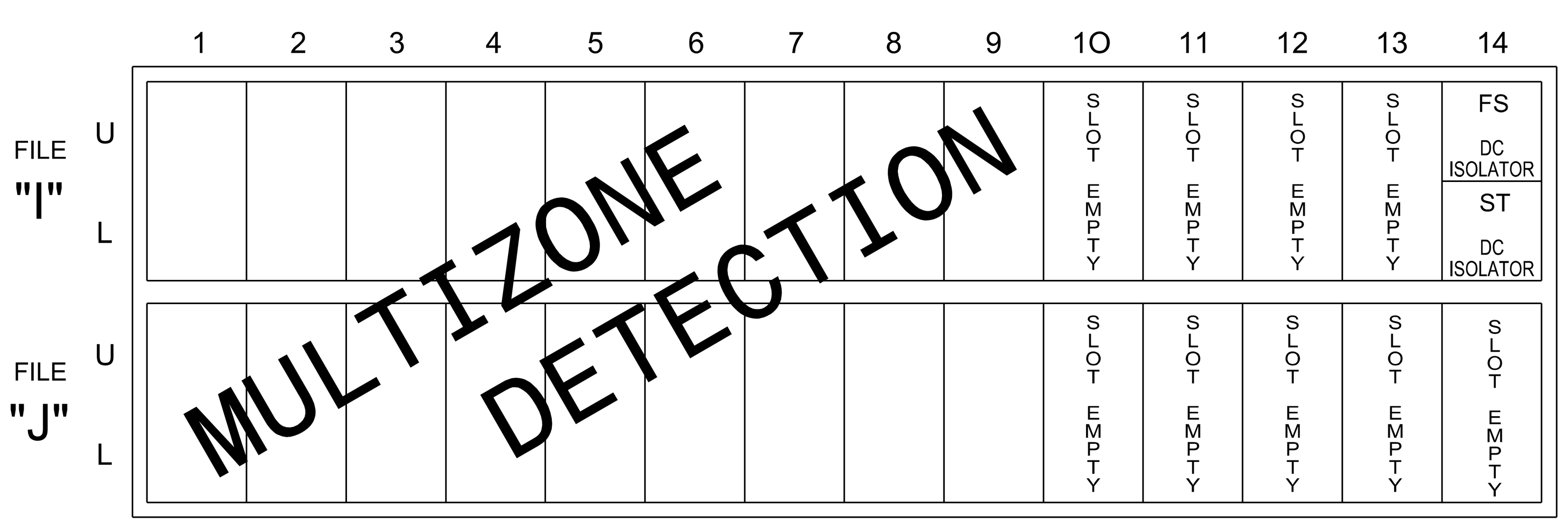
* Denotes install load resistor. See load resistor installation detail this sheet.

** Outputs have been reassigned for Advanced Beacons. See Sheet 3 for reassignment programming and wiring details.

★ See pictorial of head wiring in detail on this sheet.

INPUT FILE POSITION LAYOUT

(front view)



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

FS = FLASH SENSE
ST = STOP TIME

SPECIAL DETECTOR NOTE

Install a multizone microwave 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.

Alternate Phasing Programming on Sheet 2 assumes default MAXTIME detector assignments and layouts, as shown in the Input File Chart below.

INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
1A	TB2-1,2	I1U	56	18	1	1	15		X		X	
				-	29	6			X		X	
5A	TB3-1,2	J1U	55	17	15	5	15		X		X	
				-	31	2			X		X	

INPUT FILE POSITION LEGEND: J2L
FILE J
SLOT 2
LOWER

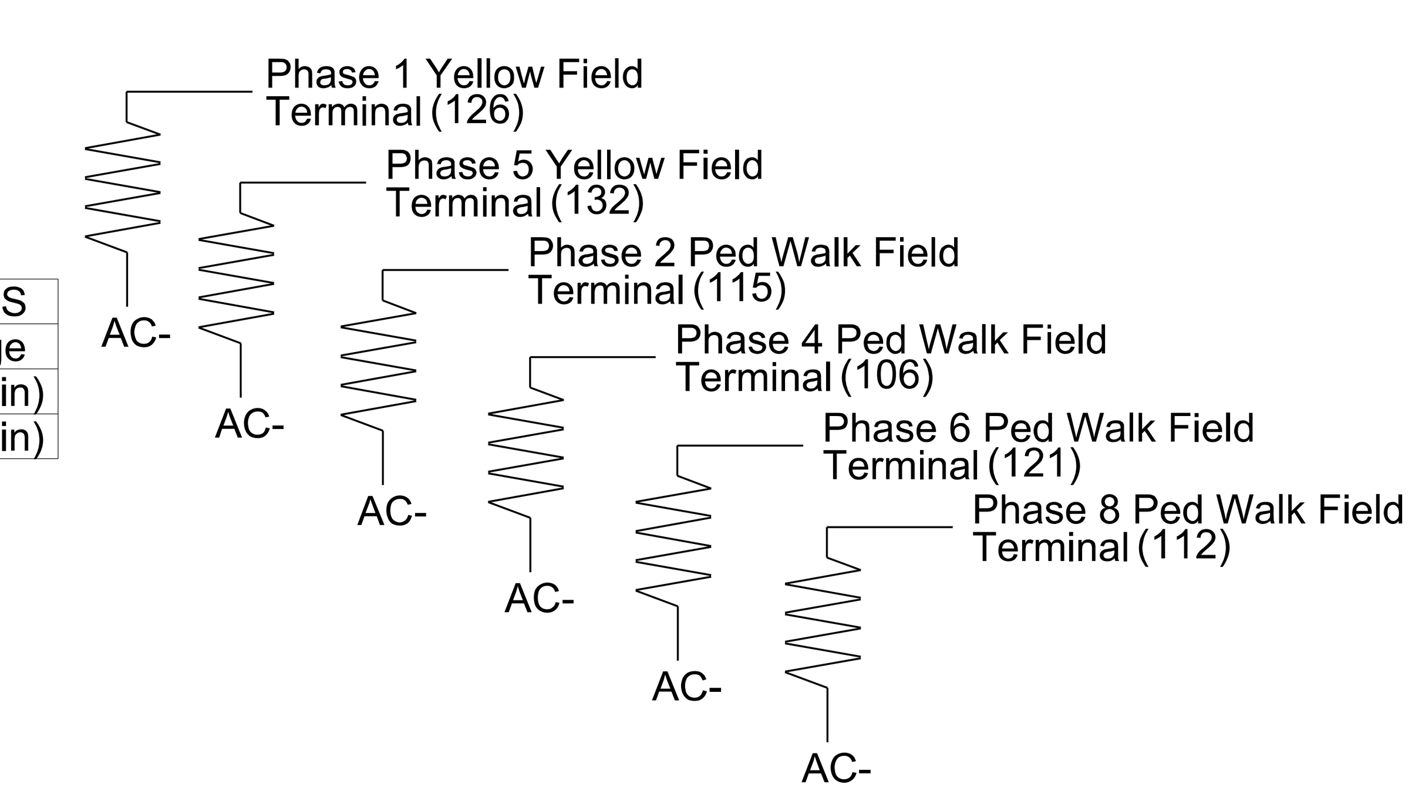
EQUIPMENT INFORMATION

Controller..2070LX
Cabinet...332 w/ Aux
Software...Q-Free MAXTIME
Cabinet Mount....................................Base
Output File Positions..........................18 With Aux. Output File
Load Switches Used...........................S1, S2, S3**,S4, S5, S6**, S7, S8, S9**, S12**, AUX S1, AUX S4
Phases Used..1, 2, 3, 4, 5, 6
Overlap "1"...*
Overlap "2"...NOT USED
Overlap "3"...*
Overlap "4"...NOT USED
*See overlap programming detail on sheet 2
**Used for advance beacons only

LOAD RESISTOR INSTALLATION DETAIL

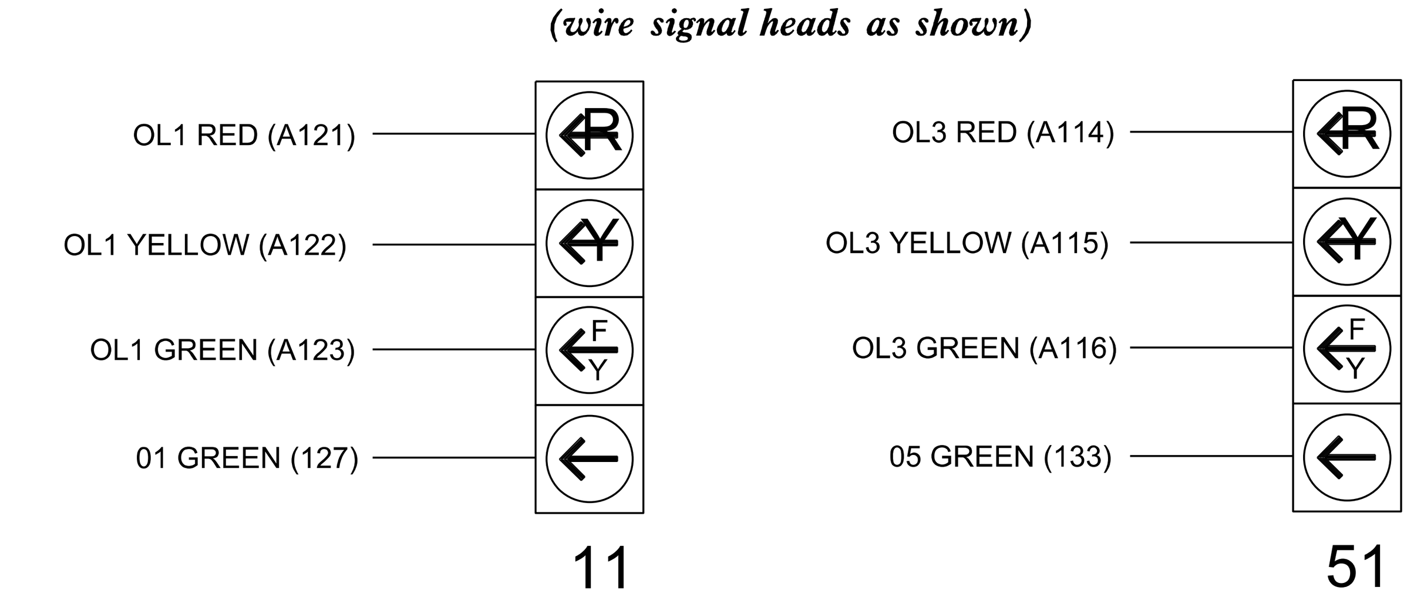
(install resistors as shown)

ACCEPTABLE VALUES	
Value (ohms)	Wattage
1.5K - 1.9K	25W (min)
2.0K - 3.0K	10W (min)



FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 03-1244T1
DESIGNED: March 2025
SEALED: 3-31-2025
REVISED: N/A

TRANSYSTEMS
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Electrical Detail - Sheet 1 of 3

Electrical and Programming Details For:

US 17 (Ocean Highway West) at US 17 Bus (Main Street SW) / SR 1316 (Old Shallotte Rd NW)

Division 3 Brunswick County Shallotte

Prepared in the Offices of:
Transportation Mobility and Safety Division
State of North Carolina Department of Transportation
ITS & Signals Management Section
750 N. Greenfield Pkwy, Garner, NC 27529

PLAN DATE: March 2025	REVIEWED BY: GG Murr, Jr.
PREPARED BY: JT Rowe	REVIEWED BY:

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
SEAL 008453
JOHN T. ROWE JR.
Signed by: John T. Rowe, Jr
DEEE832009E7407...
4-1-2025
DATE

SIG. INVENTORY NO. 03-1244T1