

8 PHASE FULLY ACTUATED GASTONIA CITY SIGNAL SYSTEM

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2002 and "Standard Specifications for roads and Structures" dated January 2002.
2. Set all detector units to presence mode.
3. Maximum times shown in timing chart are for free run operation only. Coordinated signal system timing values shall supersede these values.
4. During coordination, phase 1 or phase 5 may be lagged.
5. During coordination, phase 3 or phase 7 may be lagged.
6. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
7. Closed loop system data: telemetry address number 502
8. Reposition existing signal head numbered #41.

PLAN QUANTITIES

Pay Item	Meters
Signal Cable	220
Messenger Cable	0
Loop Lead-in Cable	75

SIGNAL FACE I.D.

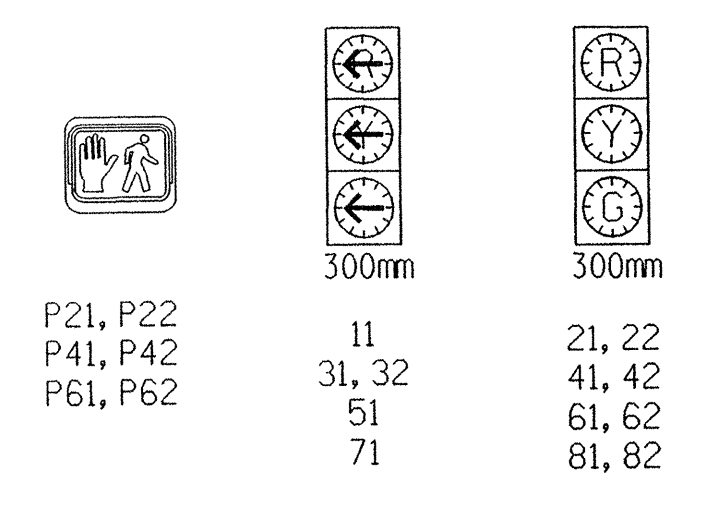
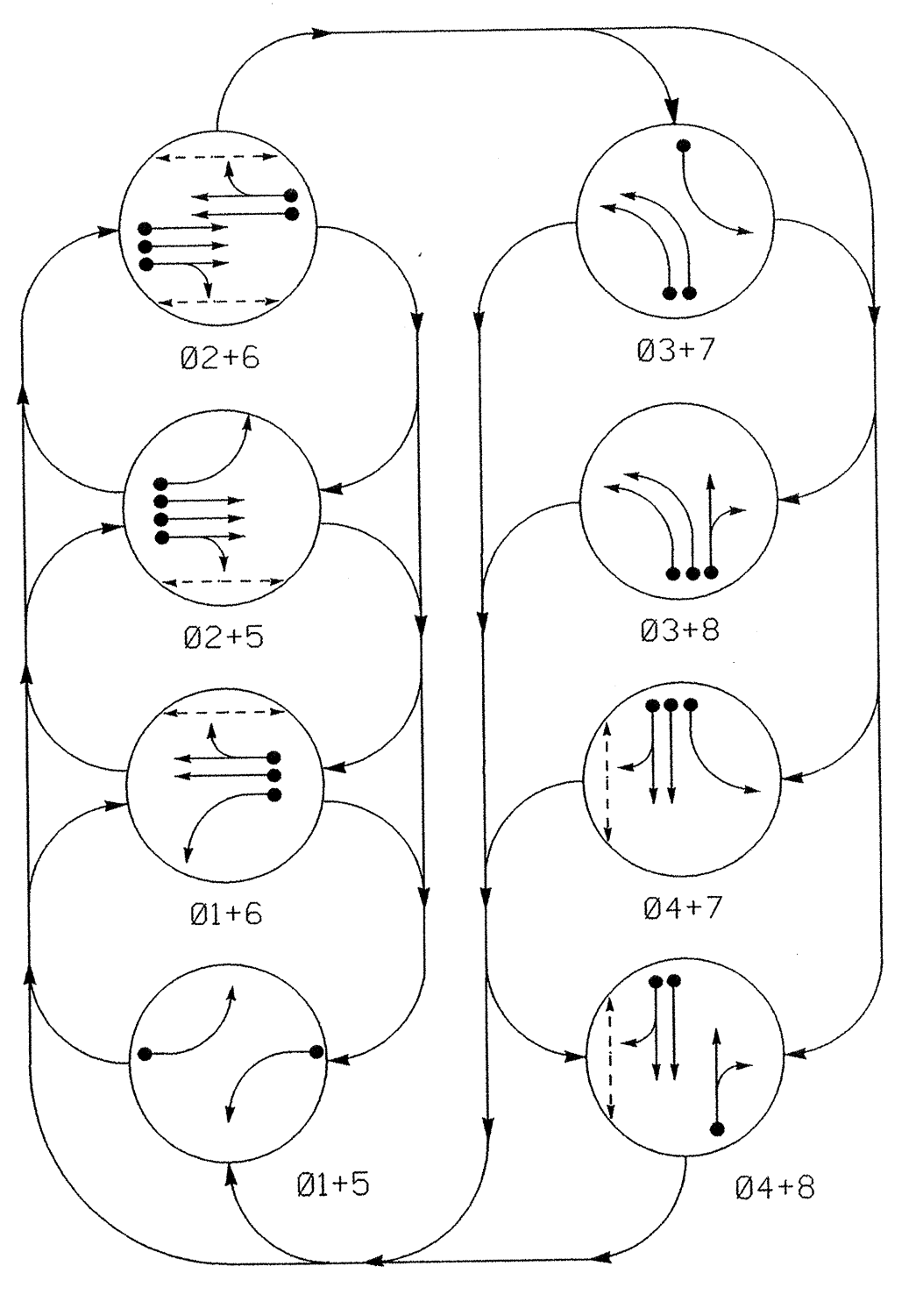


TABLE OF OPERATION

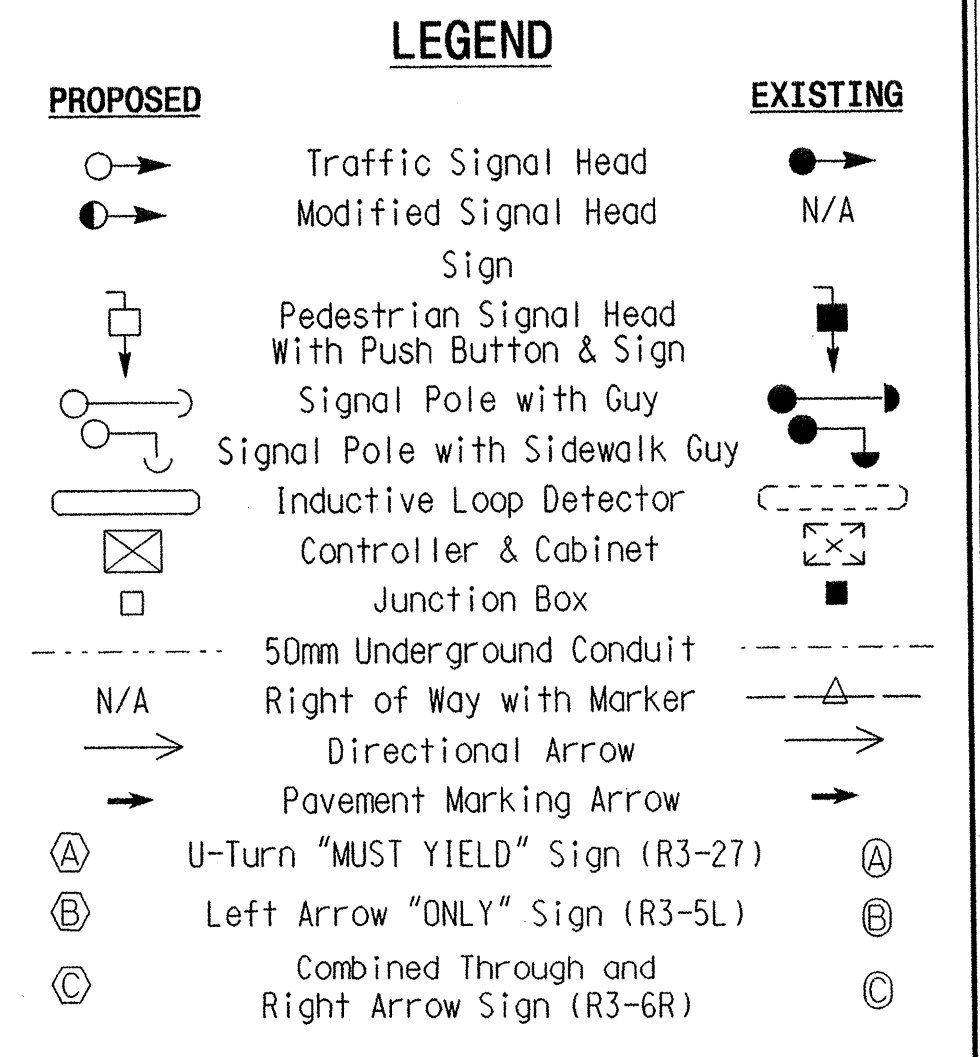
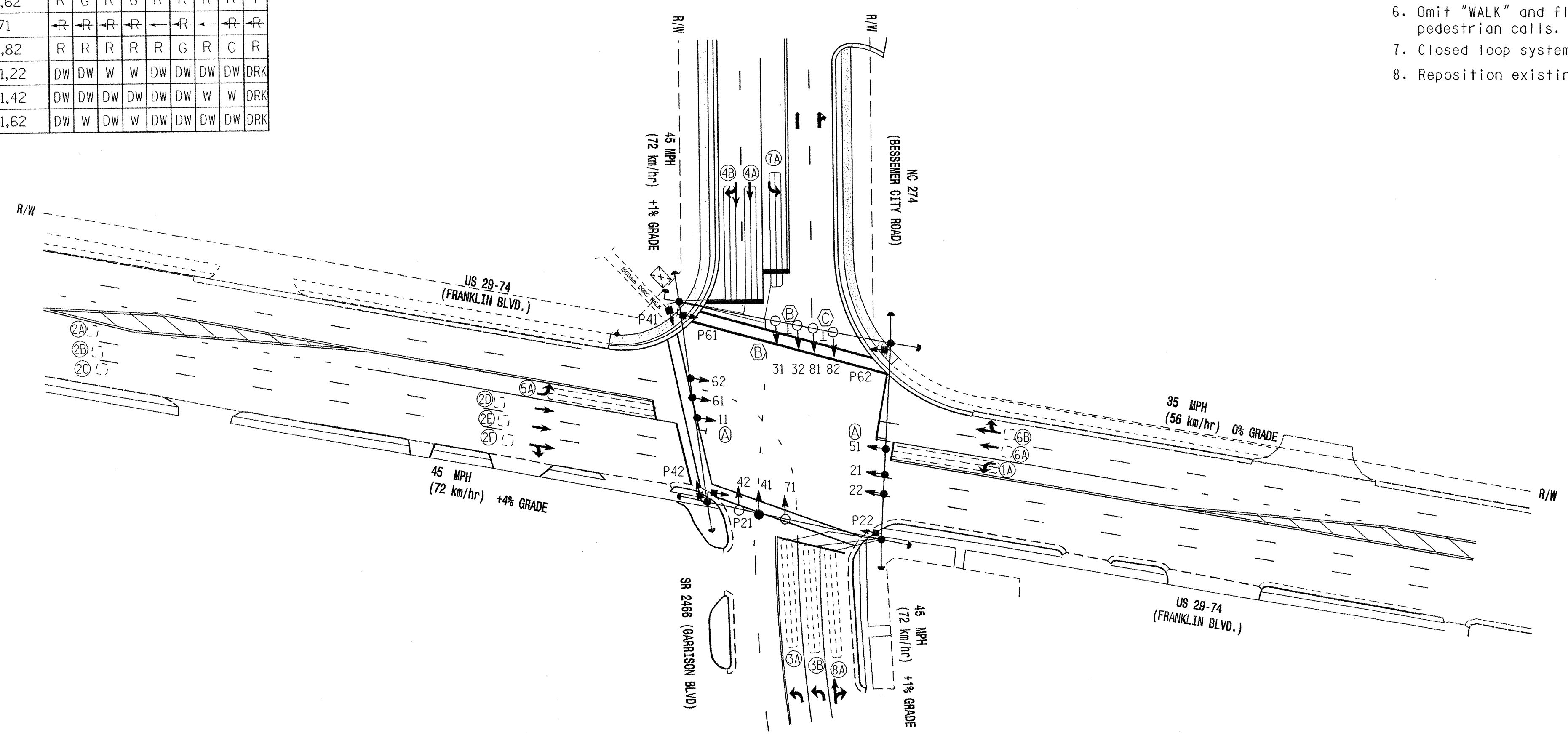
SIGNAL FACE	PHASE								FLASH
	01	02	03	04	05	06	07	08	
11	←	←	←	←	←	←	←	←	←
21,22	R	R	G	G	R	R	R	R	Y
31,32	←	←	←	←	←	←	←	←	←
41,42	R	R	R	R	R	R	G	G	R
51	←	←	←	←	←	←	←	←	←
61,62	R	G	R	G	R	R	R	R	Y
71	←	←	←	←	←	←	←	←	←
81,82	R	R	R	R	R	G	R	G	R
P21,22	DW	DW	W	W	DW	DW	DW	DW	DRK
P41,42	DW	DW	DW	DW	DW	DW	W	W	DRK
P61,62	DW	W	DW	W	DW	DW	DW	DW	DRK

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

- ← ● DETECTED MOVEMENT
- ← ○ UNDETECTED MOVEMENT (OVERLAP)
- ← ○ UNSIGNALIZED MOVEMENT
- ← ○ PEDESTRIAN MOVEMENT



TIMING CHART NEMA CONTROLLER

PHASE	01	02	03	04	05	06	07	08
MINIMUM GREEN	7 SEC.	12 SEC.	7 SEC.	7 SEC.	7 SEC.	12 SEC.	7 SEC.	7 SEC.
PASSAGE GAP	1.0 SEC.	2.0 SEC.	1.0 SEC.	1.0 SEC.	1.0 SEC.	3.0 SEC.	1.0 SEC.	1.0 SEC.
YELLOW CHANGE INT.	4.0 SEC.	4.7 SEC.	4.0 SEC.	4.7 SEC.	4.0 SEC.	4.7 SEC.	4.0 SEC.	4.7 SEC.
RED CLEARANCE	2.0 SEC.	1.5 SEC.	3.0 SEC.	2.5 SEC.	2.0 SEC.	1.5 SEC.	3.0 SEC.	2.5 SEC.
MAX. 1	15 SEC.	40 SEC.	30 SEC.	20 SEC.	15 SEC.	40 SEC.	30 SEC.	20 SEC.
RECALL POSITION	NONE	MIN. RECALL	NONE	NONE	NONE	MIN. RECALL	NONE	NONE
VEH. CALL MEMORY	NONLOCK	LOCK	NONLOCK	NONLOCK	NONLOCK	LOCK	NONLOCK	NONLOCK
WALK	— SEC.	4 SEC.	— SEC.	4 SEC.	— SEC.	4 SEC.	— SEC.	— SEC.
FLASHING DON'T WALK	— SEC.	18 SEC.	— SEC.	16 SEC.	— SEC.	23 SEC.	— SEC.	— SEC.
VOLUME DENSITY	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ACTUATION B4 ADD	— VEH.	— VEH.	— VEH.	— VEH.	— VEH.	— VEH.	— VEH.	— VEH.
SEC. PER ACTUATION	— SEC.	— SEC.	— SEC.	— SEC.	— SEC.	— SEC.	— SEC.	— SEC.
MAX. INITIAL	— SEC.	— SEC.	— SEC.	— SEC.	— SEC.	— SEC.	— SEC.	— SEC.
TIME B4 REDUCTION	— SEC.	— SEC.	— SEC.	— SEC.	— SEC.	— SEC.	— SEC.	— SEC.
TIME TO REDUCE	— SEC.	— SEC.	— SEC.	— SEC.	— SEC.	— SEC.	— SEC.	— SEC.
MINIMUM GAP	— SEC.	— SEC.	— SEC.	— SEC.	— SEC.	— SEC.	— SEC.	— SEC.

LOOP & DETECTOR UNIT INSTALLATION CHART NEMA CONTROLLER WITH TS-1 CABINET

LOOP NO.	SIZE (m)	TURNS	DIST. FROM STOPBAR (m)	INDUCTIVE LOOPS		DETECTOR UNITS		NEMA PHASE	TIMING FEATURE	PLACE CALL DURING PHASE	INHIBIT DELAY DURING GREEN?			
				NEW	EXISTING	NEW	EXISTING							
1A	1.8 X 1.8	2-4-2	0	—	X	1	—	X	1	—	ALL	NO		
2A,2B,2C	1.8 X 1.8	5	90	—	X	3	—	X	2	2	—	ALL	NO	
2D,2E,2F	1.8 X 1.8	5	27	—	X	3	—	X	2	2	—	ALL	NO	
3A	1.8 X 1.8	2-4-2	0	—	X	4	—	X	1	3	DELAY	3.0 SEC.	ALL	YES
3B	1.8 X 1.8	2-4-2	0	—	X	4	—	X	1	3	—	—	ALL	NO
4A	1.8 X 1.8	2-4-2	0	X	—	5	—	X	1	4	—	—	ALL	NO
4B	1.8 X 1.8	2-4-2	0	X	—	5	—	X	2	4	DELAY	10.0 SEC.	ALL	YES
5A	1.8 X 1.8	2-4-2	0	—	X	6	—	X	1	5	—	—	ALL	NO
6A,6B	1.8 X 1.8	4	21	—	X	7	—	X	1	6	—	—	ALL	NO
7A	1.8 X 1.8	2-4-2	+2	X	—	8	X	—	1	7	DELAY	3.0 SEC.	ALL	YES
8A	1.8 X 1.8	2-4-2	0	—	X	2	—	X	1	8	DELAY	10.0 SEC.	ALL	YES

SIGNAL UPGRADE - FINAL DESIGN

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SCALE 1:500

SEAL NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 027742 ROBERT J. DUBNICKA

Sig. Inventory No. 12-0030

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