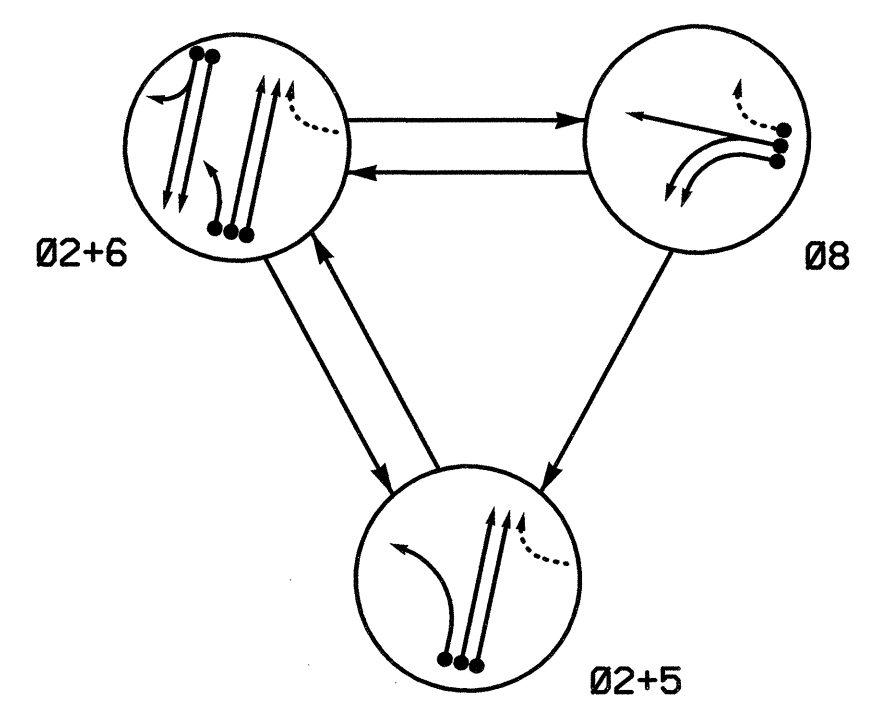


3 Phase Fully Actuated (NC 42 Closed Loop System)

PHASING DIAGRAM

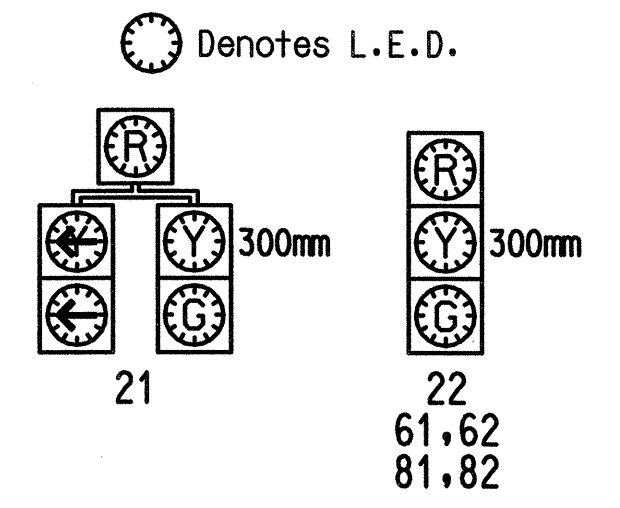


PHASING DIAGRAM DETECTION LEGEND
 ←●→ DETECTED MOVEMENT
 ←→ UNDETECTED MOVEMENT (OVERLAP)
 - - - UNSIGNALIZED MOVEMENT
 ←- - - PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE			
	02+5	08	FLASH	F
21	G	R	Y	
22	G	R	Y	
61,62	R	G	R	
81,82	R	R	G	R

SIGNAL FACE I.D.



2070L LOOP & DETECTOR INSTALLATION

LOOP	SIZE (M)	DISTANCE FROM STOPBAR (M)	TURNS	NEW LOOP	DETECTOR PROGRAMMING							
					PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
2A	**	130	**	Y	2	Y	Y	-	-	-	-	Y
5A	1.8x1.2	0	2-4-2	Y	2	Y	Y	Y	-	3	-	Y
6A,S1	1.8x1.8	130	6	Y	6	Y	Y	-	-	-	-	Y
6B,S2	1.8x1.8	130	6	Y	6	Y	Y	-	-	-	-	Y
8A	1.8x1.2	0	2-4-2	Y	8	Y	Y	-	-	-	-	Y
8B	1.8x1.2	0	2-4-2	Y	8	Y	Y	-	-	-	-	Y
8C	1.8x1.2	*	2-4-2	Y	8	Y	Y	-	-	20	-	Y

* PLACE LOOP AS SHOWN ON PLAN.
 ** MICROWAVE DETECTION ZONE

NOTES

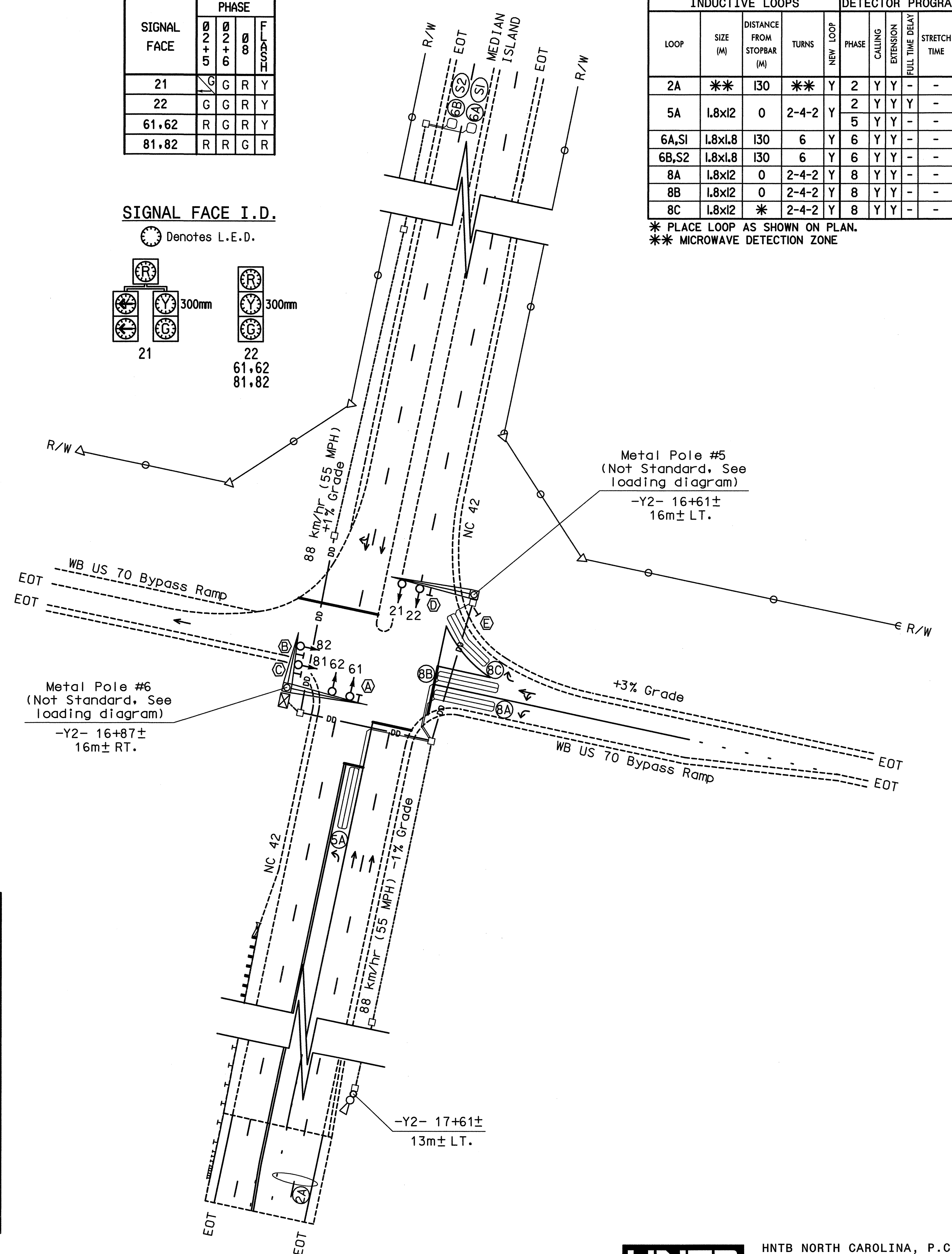
- Refer to "Roadway Standard Drawings NCDOT" dated January 2002 and "Standard Specifications for Roads and Structures" dated January 2002.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 5 may be lagged.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Closed Loop System Data: Controller Asset #1261

PLAN QUANTITIES

Pay Item	Meters
Signal Cable	145
Messenger Cable	0
Loop Lead-in Cable	430

LEGEND

PROPOSED	EXISTING
○	●
○→	N/A
⊥	⊥
⊥	⊥
○→	○→
○→	○→
⊠	⊠
□	□
---	---
N/A	△
→	→
N/A	○
N/A	---
---	N/A
⊠	⊠
○	○
△	N/A
⊠	N/A
⊠	N/A
⊠	N/A
⊠	N/A



2070L TIMING CHART

FEATURE	PHASE			
	2	5	6	8
Min Green 1*	14	7	14	7
Extension 1*	6.0	2.0	6.0	2.0
Max Green 1*	90	15	90	30
Yellow Clearance	5.3	3.5	5.3	3.8
Red Clearance	1.2	3.0	1.2	2.4
Walk 1*	-	-	-	-
Don't Walk 1	-	-	-	-
Seconds Per Actuation*	1.5	-	1.5	-
Max Variable Initial*	46	-	46	-
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	YELLOW	-	YELLOW	-
Dual Entry	-	-	-	-
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.

New Signal Design

	NC 42 At US 70 Bypass WB Ramps		SEAL
	Division 04 Johnston County S of Clayton PLAN DATE: November 2004 PREPARED BY: T.R. Terrell	REVIEWED BY: S.T. Franklin REVIEWED BY: C.A. Johnson	
HNTB HNTB NORTH CAROLINA, P.C. 343 E. Six Forks Road, Suite 200 Raleigh, North Carolina 27609		SCALE 5 0 10 1:500	SIG. INVENTORY NO. 04-1261