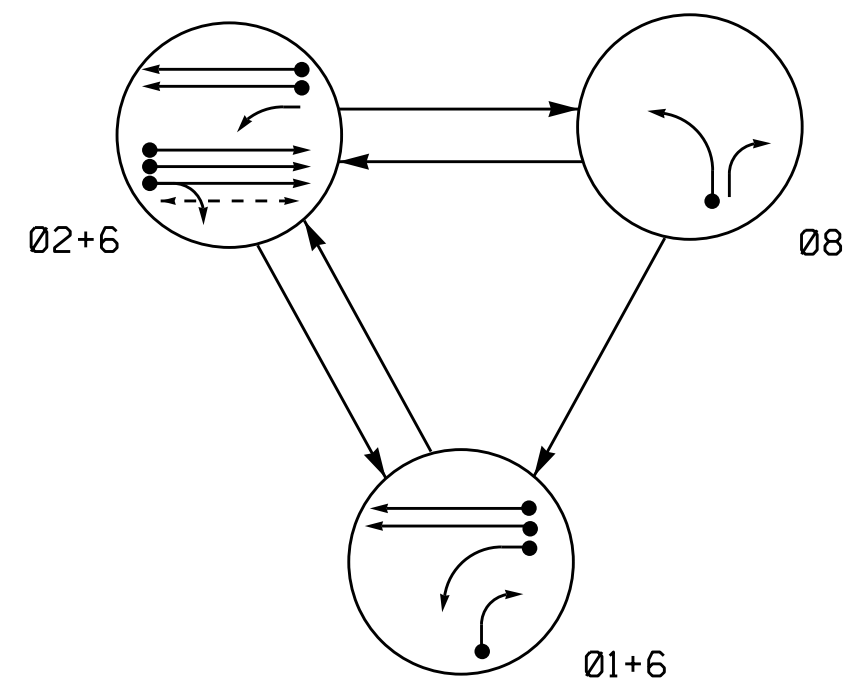
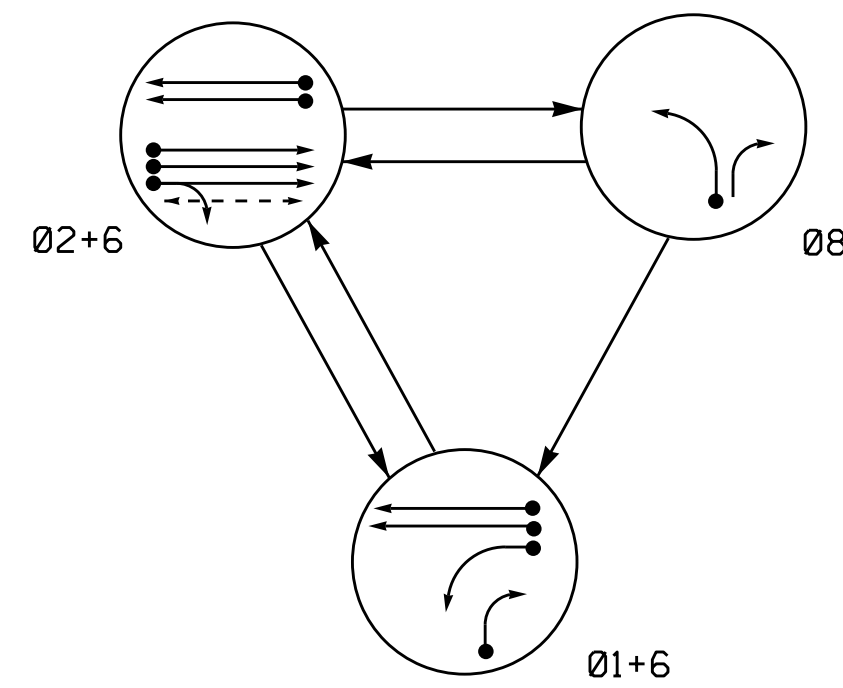


DEFAULT PHASING DIAGRAM



ALTERNATE PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE				
	01+6	02+6	08	F	H
11	-	-	-	-	-
21, 22, 23	R	G	R	Y	
61, 62	G	G	R	Y	
81	R	R	G	R	
82	R	R	G	R	
P21, P22	DW	W	DW	DRK	

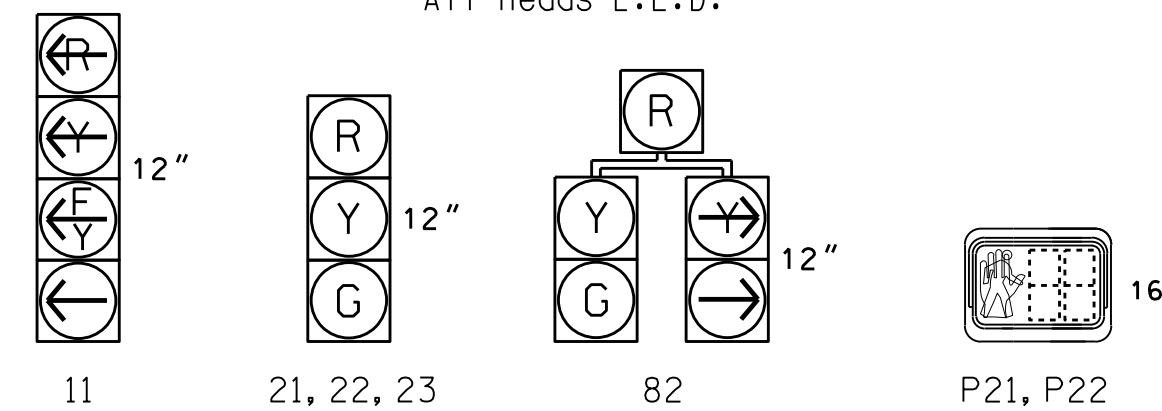
ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE				
	01+6	02+6	08	F	H
11	-	-	-	-	-
21, 22, 23	R	G	R	Y	
61, 62	G	G	R	Y	
81	R	R	G	R	
82	R	R	G	R	
P21, P22	DW	W	DW	DRK	

SE-PAC 2070 LOOP & DETECTOR UNIT INSTALLATION CHART																			
INDUCTIVE LOOPS					DETECTOR PROGRAMMING														
ZONE NO.	SIZE (ft)	TURNS	DIST. FROM STOPBAR (ft)	NEW EXISTING	ASSIGNED PHASE	TIMING		OPERATION MODE											
						DELAY	EXTEND (STRETCH)	VEHICLE	PEDESTRIAN	L CALL	STOP A	STOP B	PROTECTOR THROUGH	PROTECTOR THROUGH AND	SWITCH	SYSTEM LOOPS	STATUS		
1A	6X40	*	0	X	-	1	5 SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-
1B	6X40	*	0	X	-	1	15 SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-
2A	6X6	*	300	X	-	2	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-
2B	6X6	*	300	X	-	2	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-
2C	6X6	*	300	X	-	2	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-
6A	6X6	*	300	X	-	6	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-
6B	6X6	*	300	X	-	6	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-
8A	6X40	*	0	X	-	8	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-

* Video Detection Zone

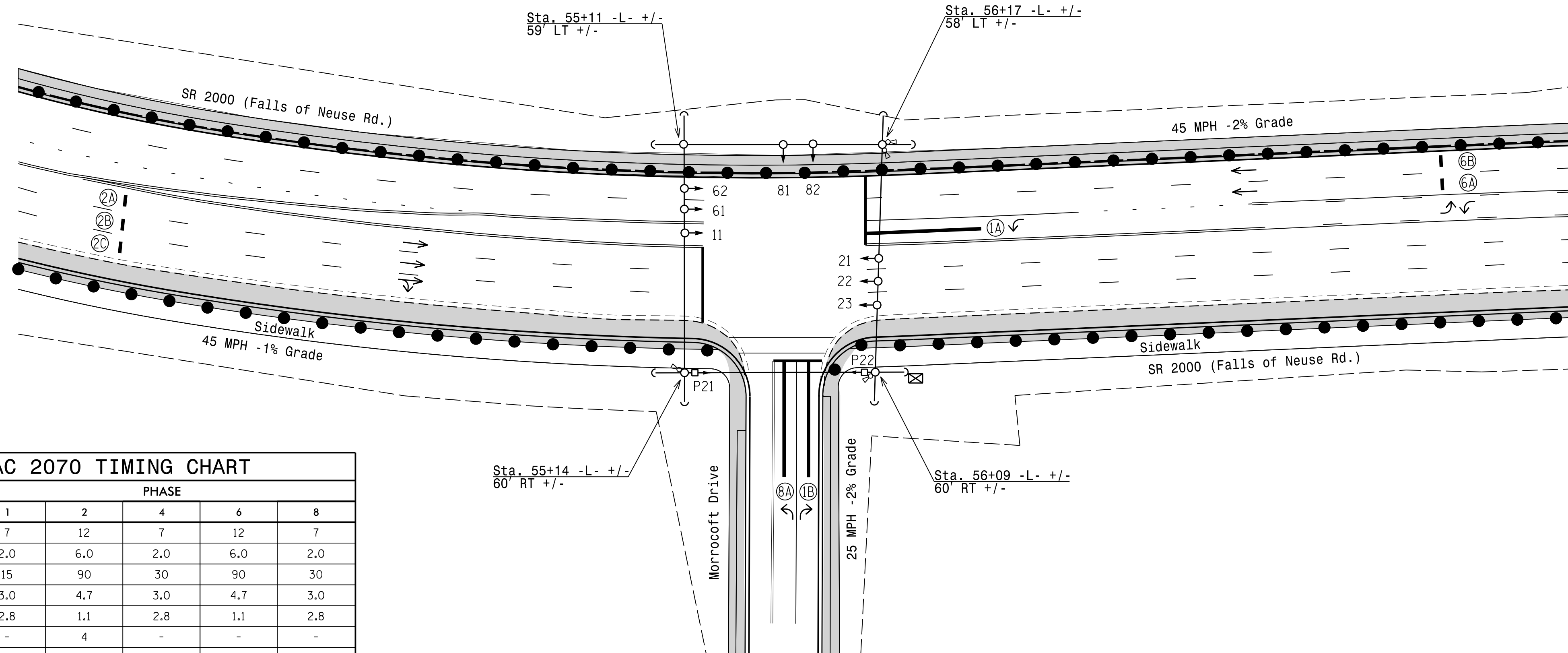
SIGNAL FACE I.D.



3 Phase Fully Actuated (Raleigh Signal System)

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 may be lagged.
4. Set all detector units to presence mode.
5. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
6. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
7. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
8. The Division (City) Traffic Engineer will determine the hours of use for each phasing plan.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
10. Program phase 4 as a dummy phase for Ring 1.
11. This intersection features a video detection system. Shown locations of detectors are conceptual only. Refer to the manufacturer's guidelines for optimal detector placement.
12. This intersection features accessible pedestrian signals utilizing percussive tone walk indications and/or speech messages.



FEATURE	PHASE				
	1	2	4	6	8
Min Green *	7	12	7	12	7
Passage Gap *	2.0	6.0	2.0	6.0	2.0
Maximum Green *	15	90	30	90	30
Yellow Change	3.0	4.7	3.0	4.7	3.0
Red Clear	2.8	1.1	2.8	1.1	2.8
Walk *	-	4	-	-	-
Pedestrian Clear	-	10	-	-	-
Added Initial *	-	1.0	-	1.5	-
Maximum Initial *	-	34	-	34	-
Time Before Reduction *	-	15	-	15	-
Time To Reduce *	-	30	-	30	-
Minimum Gap	-	3.0	-	3.0	-
Recall Mode	-	MIN RECALL	-	MIN RECALL	-
Vehicle Call Memory	NON-LOCK	LOCK	-	LOCK	NON-LOCK
Dual Entry	-	-	ON	-	-
Simultaneous Gap	ON	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.

LEGEND

- | PROPOSED | EXISTING |
|--|----------|
| ○ Traffic Signal Head | ● N/A |
| ○ Modified Signal Head | ○ N/A |
| ○ Sign | ○ N/A |
| ○ Pedestrian Signal Head With Push Button & Sign | ○ N/A |
| ○ Signal Pole with Guy | ○ N/A |
| ○ Signal Pole with Sidewalk Guy | ○ N/A |
| ○ Inductive Loop Detector | ○ N/A |
| ○ Controller & Cabinet | ○ N/A |
| ○ Junction Box | ○ N/A |
| ○ 2-in Underground Conduit | ○ N/A |
| ○ Right of Way | ○ N/A |
| ○ Directional Arrow | ○ N/A |
| ○ Construction Zone Drums | ○ N/A |
| ○ Construction Zone | ○ N/A |
| ○ Out of Pavement Detector | ○ N/A |
| ○ Video Detection Zone | ○ N/A |

ACCESSIBLE PEDESTRIAN SIGNAL OPERATION				
SIGNAL FACE	VOICE	TONES	INTERVAL	SPEECH MESSAGE
P21, P22	-	X	Walk	(Percussive Tone)
	X	-	Flashing Don't Walk / Don't Walk	Wait, Wait to cross Morrocroft.

Signal Upgrade - Temp. Design 1 (TMP Phase I & II)

Prepared in the Offices of:

 TRANSPORTATION MOBILITY AND SAFETY DIVISION
 DEPARTMENT OF TRANSPORTATION
 SIGNAL DESIGN SECTION
 750 N. Greenfield Pkwy, Garner, NC 27529

SR 2000 (Falls of Neuse Rd.)
 at
 Morrocroft Drive

Division 5 Wake County Raleigh

PLAN DATE: July 2019 REVIEWED BY:

PREPARED BY: I. O. Umzurike REVIEWED BY:

REVISIONS

NO.	INIT.	DATE

SCALE
 0 40
 1" = 40'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
 MOTT CAROLINA PROFESSIONAL ENGINEER
 SEAL 026486
 ROBERT J. ZIEMBA
 ENGINEER

8/22/2019
 DATE

SIG. INVENTORY NO. 05-229311