3 Phase Fully Actuated (Durham Signal System)

NOTES

- 1. Refer to "Road Standard Drawings NCDOT" dated January 2012, "Standard Specifications for Roads and Structures" dated January 2012.
- 2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- 3. Phase 3 may be lagged.

PROPOSED

 \bigcirc

N/A

 $\langle A \rangle$

- 4. Reposition signal heads #21, #22, #23, #61, #62 and #63 during this phase of construction
- 5. Set all detector units to presence mode.
- 6. Program all timing information into phase banks 1,2, and 3 unless otherwise noted.
- 7. Set phase bank 3 maximum limit to 250 seconds for phases used.
- 8. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- 9. Program pedestrian heads to countdown the flashing "Don't Walk" time.
- 10. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- 11. Bag and disconnect signal head #61 and pedestrian signal heads #P61 and #P62 for Temporary Design 5 and Temporary Design 7.
- 12. Pedestrian signal head #P42 shall remain disconnected and bagged for Temporary Design 5 and Temporary Design 7
- 13. Reconnect and unbag pedestrian signal head #P81 for Temporary Design 5 and Temporary Design 7.
- 14. Reconnect and unbag signal heads #21, #31, #41, #42 and #43 and pedestrian signal head #P82 for Temporary Design 7
- 15. Contractor shall adjust video detection zones as required.

LEGEND

Traffic Signal Head

Modified Signal Head

Sign

Pedestrian Signal Head With Push Button & Sign

Signal Pole with Guy Signal Pole with Sidewalk Guy Inductive Loop Detector

> Controller & Cabinet Junction Box

2-in Underground Conduit

Right of Way

Directional Arrow Work Area

Drums

Construction Easement

Barricades

Direct Bury

"No Left Turn" (R3-2)

Type I Pushbutton Post

— Permanent Utility Easement

EXISTING

-

N/A

 \rightarrow

_-----

N/A

N/A

N/A

N/A

N/A

Video Detector Video Detection Area Signal Upgrade - Temporary Design 7 (TMP Phase 2, Steps 7 - 12) Signal Upgrade - Temporary Design 5 (TMP Phase 2, Steps 1 - 6)

NC 55 (North Alston Avenue)

US 70 - NC 98 (Holloway Street) Division 5 Durham County

PLAN DATE: September 2014 REVIEWED BY: J Hochanadel 50 N.Greenfield Pkwy,Garner,NC 27529 PREPARED BY: R Drayton REVIEWED BY:

INIT. DATE

2033 SOFTWARE w/ 2070 CONTROLLER LOOP & DETECTOR UNIT INSTALLATION CHART

DETECTOR PROGRAMMING

- SEC. - SEC. - X | - | - | - | - | - | - | X

- SEC. - SEC. - X - - - -

INDUCTIVE LOOPS						DETECTOR TROUBLING														
									ATTRIBUTES									STATUS		
						TIM		1	2	3	4	5	6	7	8	LOOPS				
LOOP NO.	SIZE (ft)	TURNS	DIST. FROM STOPBAR (ft)	NEW	EXISTING	NEMA PHASE		CARRY	- 1	FULL TIME DELAY	PEDESTRIAN CALL	RESERVED	COUNT	EXTENSION	TYPE 3	CALLING	ALTERNATE		NEW	EXISTING
							DELAY	(STRETCH)		FULL							ALTE	SYSTEM		Ä
2A	6×6	*	70	*	-	2	- SEC.	- SE(\ / a	-	-	-	-	Χ	_	Χ	-	-	ı	*
2B	6×40	*	0	*	-	2	- SEC.	- SEC	\ / a	-	-	1	-	Χ	_	Χ	1	-	ı	*
3A	6×40	*	0	*		3	15 SEC.	- SEC	\ / a	-	-	-	-	Χ	-	Χ	-	-	-	*
					_	8	3 SEC.	- SE(\	-	-	-	-	Χ	-	Χ	-	_	-	*
4A	6×40	*	0	*	-	4	3 SEC.	- SEC	`	-	-	-	-	Χ	-	Χ	-	-	-	*
4B	6×40	*	0	*	-	4	10 SEC.	- SEC	`	-	-	-	-	Χ	-	X	-	-	ı	*
6A	6×6	*	70	*	-	6	- SEC.	- SEC	`	-	-	1	-	Χ	-	Χ	-	-	ı	*
8.8	6×40	*	0	*	-	8	10 SEC.	- SEC	\ / a	-	-	1	-	Χ	-	X	-	-	1	*
PEDES	TRIAN	DETECT	ION								·									

- | X | 8 |

* Video Detection Zone

P21,P22 N/A N/A N/A

| P81,P82 | N/A | N/A | N/A

PHASING DIAGRAM DETECTION LEGEND

PHASING DIAGRAM

DETECTED MOVEMENT UNDETECTED MOVEMENT (OVERLAP) UNSIGNALIZED MOVEMENT PEDESTRIAN MOVEMENT

SIGNAL FACE I.D.

TABLE OF OPERATION

SIGNAL

FACE

22,23

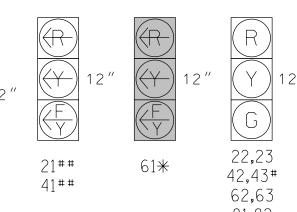
81,82

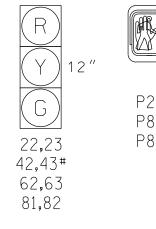
P21,P22 | W | DW | DW | DRK |

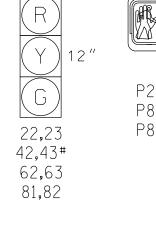
P81,P82 |DW|W|W|DRK|

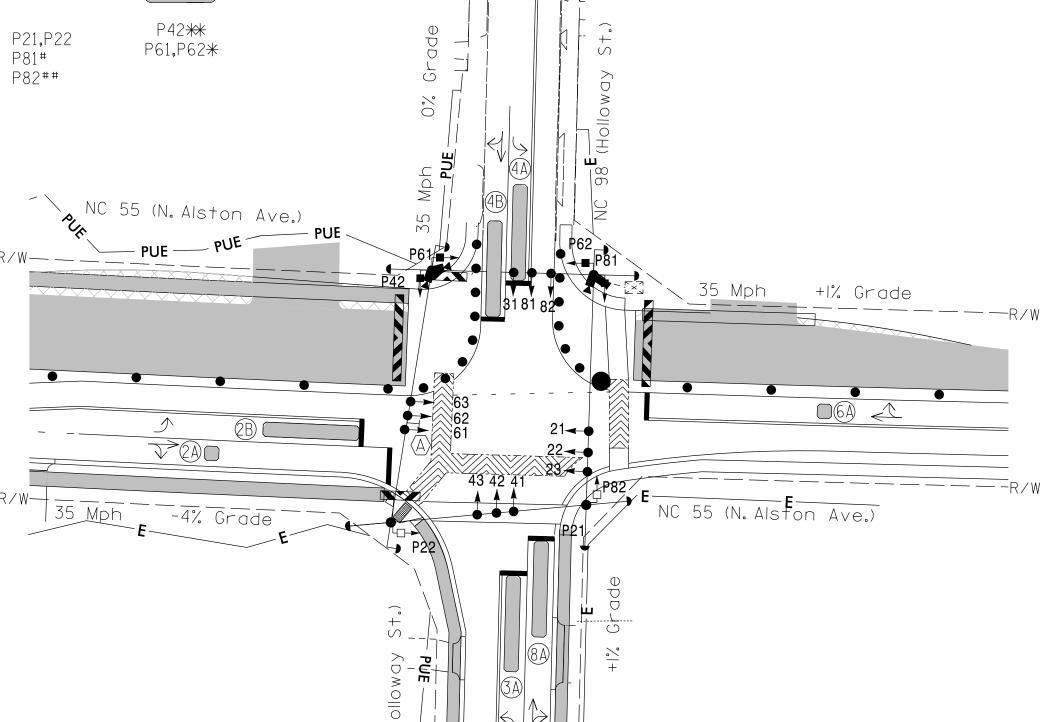
PHASE

All Heads L.E.D. * See Note 11 ** See Note 12 # See Note 13 ## See Note 14









TIMING CHART 2033 SOFTWARE w/2070 CONTROLLER Ø8 OL3 OL4 MINIMUM INITIAL 1 () **SEC**. 7 **SEC**. 10 **SEC**. 7 **SEC**. O SEC. O SEC. VEHICLE EXTENSION 4.1 **SEC**. 3.0 **SEC**. 3.8 **SEC**. 4.1 SEC. 3.8 **SEC**. 4.1 **SEC**. 3.8 **SEC**. YELLOW CHANGE INT 1.9 **SEC**. 2.0 **SEC**. RED CLEARANCE 1.9 **SEC**. .9 **SEC**. | 2 . 0 **SEC**. MAXIMUM LIMIT 50 **SEC**. 15 **SEC**. 35 **SEC**. 50 **SEC**. SEC. **RECALL POSITION** VEH. RECALL VEH. RECALL YELLOW LOCK VEHICLE CALL MEMORY NONE NONE NONE YELLOW LOCK OFF OFF DOUBLE ENTRY ON 4 **SEC**. SEC. SEC. SEC. 4 **SEC**. FLASHING DON'T WALK 1 4 **SEC**. SEC. 17 **SEC**. SEC. — SEC. TYPE 3 LIMIT — SEC. SEC. - SEC. SEC. SEC. - SEC. ALTERNATE EXTENSION SEC. SEC. SEC. SEC. ADD PER VEHICLE SEC. — SEC. - SEC. SEC. — SEC. MAXIMUM INITIAL — SEC. SEC. SEC. — SEC. SEC. MAXIMUM GAP* 3.0 **SEC**. 2 . O **SEC**. 2 . O SEC. 3 . 0 **SEC**. 2 **.** () **SEC**. SEC. SEC. SEC. SEC. REDUCE 0.1 SEC EVERY * SEC.

for all other phases should not be lower than 4 seconds

3 **.** 0 **SEC**.

2 **.** O **SEC**.

1025 Wade Avenue Raleigh, NC 27605 Tel:919-789-9977

Prepared for the Offices of:

SIG. INVENTORY NO. 05-1027T5/T

MyPAL

DATE