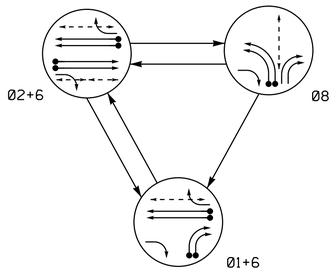
PROJECT REFERENCE NO.	SHEET NO.
U-2525C	Sig. 5.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø1+6	PHASE Ø2+6	PHASE Ø8	FLASH
11, 12, 13	→	R	→	R
21	R	G	R	Y
22	R/→	G	R/→	Y
61, 62	G	G	R	Y
63	F Y	F Y	R	Y
81, 82	R	R	←	R
P21, P22	DW	W	DW	DRK
P23, P24	DW	W	DW	DRK
P61, P62	W	W	DW	DRK
P81, P82	DW	DW	W	DRK

W - Walk
DW - Don't Walk
DRK - Dark

LOOP & DETECTOR UNIT INSTALLATION CHART

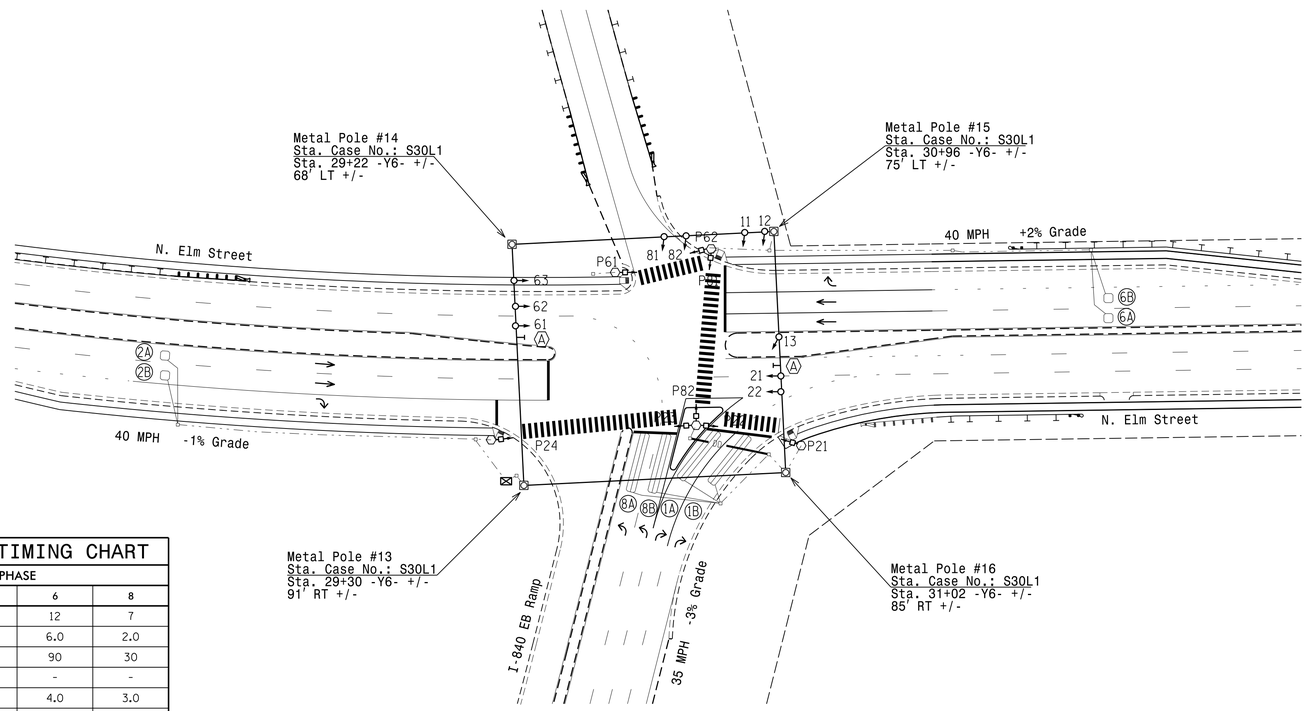
NAZTEC APOGEE SOFTWARE 2070 CONTROLLER

INDUCTIVE LOOPS					DETECTOR PROGRAMMING								
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	SWITCH (PHASE)	DELAY TIME	STRETCH TIME	CALLING	EXTENSION	ADDED INIT.	SYSTEM LOOP	NEW CARD
1A	6X40	0	2-4-2	X	1	-	15	-	X	X	-	-	X
1B	6X40	0	2-4-2	X	1	-	15	-	X	X	-	-	X
2A	6X6	250	5	X	2	-	-	-	X	X	X	-	X
2B	6X6	250	5	X	2	-	-	-	X	X	X	-	X
6A	6X6	250	5	X	6	-	-	-	X	X	X	-	X
6B	6X6	250	5	X	6	-	-	-	X	X	X	-	X
8A	6X40	0	2-4-2	X	8	-	-	-	X	X	-	-	X
8B	6X40	0	2-4-2	X	8	-	-	-	X	X	-	-	X

3 Phase
Fully Actuated
(Greensboro 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. Pedestrian pedestals are conceptual and shown for reference only. See sheets P1-P3 for pushbutton location details.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	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	
N/A	Right of Way	
	Directional Arrow	
N/A	Guardrail	
N/A	Curb Ramp	
	Metal Strain Pole	
	Directional Drill	N/A

(A) No U-Turn/No Left Turn Sign (R3-18) (A)

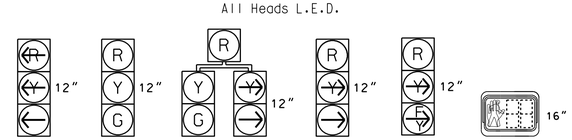
NAZTEC APOGEE 2070 TIMING CHART

FEATURE	PHASE 1	PHASE 2	PHASE 6	PHASE 8
Min Green *	7	12	12	7
Gap, Extension *	2.0	6.0	6.0	2.0
Maximum Green 1 *	30	90	90	30
Maximum Green 2 *	-	-	-	-
Yellow Clear	3.0	4.2	4.0	3.0
Red Clear	2.4	2.9	1.2	2.9
Walk *	-	7	7	7
Pedestrian Clear	-	29	15	25
Added Initial *	-	2.0	2.0	-
Maximum Initial *	-	29	29	-
Time Before Reduction *	-	15	15	-
Time To Reduce *	-	30	30	-
Minimum Gap	-	3.0	3.0	-
Recall Mode	-	MIN RECALL	MIN RECALL	-
Lock Calls	NO	YES	YES	NO
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.

SIGNAL FACE I.D.

All Heads L.E.D.



81, 82 | 21, 61, 62 | 22 | 11, 12, 13 | 63 | P21, P22, P23, P24, P61, P62, P81, P82

New Installation

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Offices of:
Transportation Mobility and Safety Division
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

N. Elm Street at I-840 WB Ramps

Division 7 Guilford County Greensboro

PLAN DATE: September 2017 REVIEWED BY:
PREPARED BY: I. O. Umozurike REVIEWED BY:

SCALE 0 50 1"=50'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 026486 ENGINEER ROBERT J. ZIEMBA

DocuSigned by: 10/24/2017
DocuSigned by: DATE
SIG. INVENTORY NO. 07-1722

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