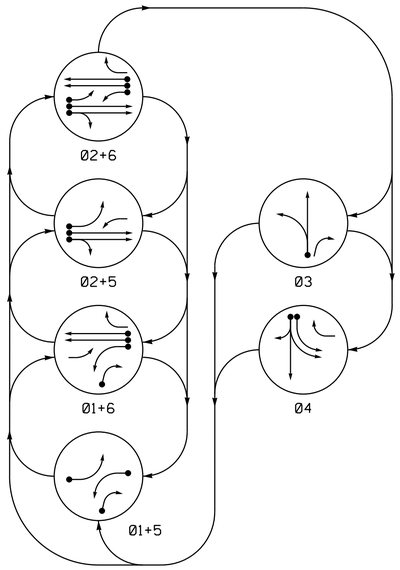
PROJECT REFERENCE NO.	SHEET NO.
U-4715 B	Sig.149.0

6 Phase
Fully Actuated
Asheville Signal System

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	03	04	FLASH
11	←	←	F Y	F Y	R	R	Y
21, 22	R	R	G	G	R	R	Y
31	R	R	R	R	G ←	R	R
32	R	R	R	R	G	R	R
33	R →	R →	R	R	G	R	R
41	R	R	R	R	R	G ←	R
42	R	R	R	R	R	G	R
51	←	F Y	←	F Y	R	R	Y
61	R	G	R	G	R	R	Y
62	R	G	R	G	R	R →	Y

SIGNAL FACE I.D.

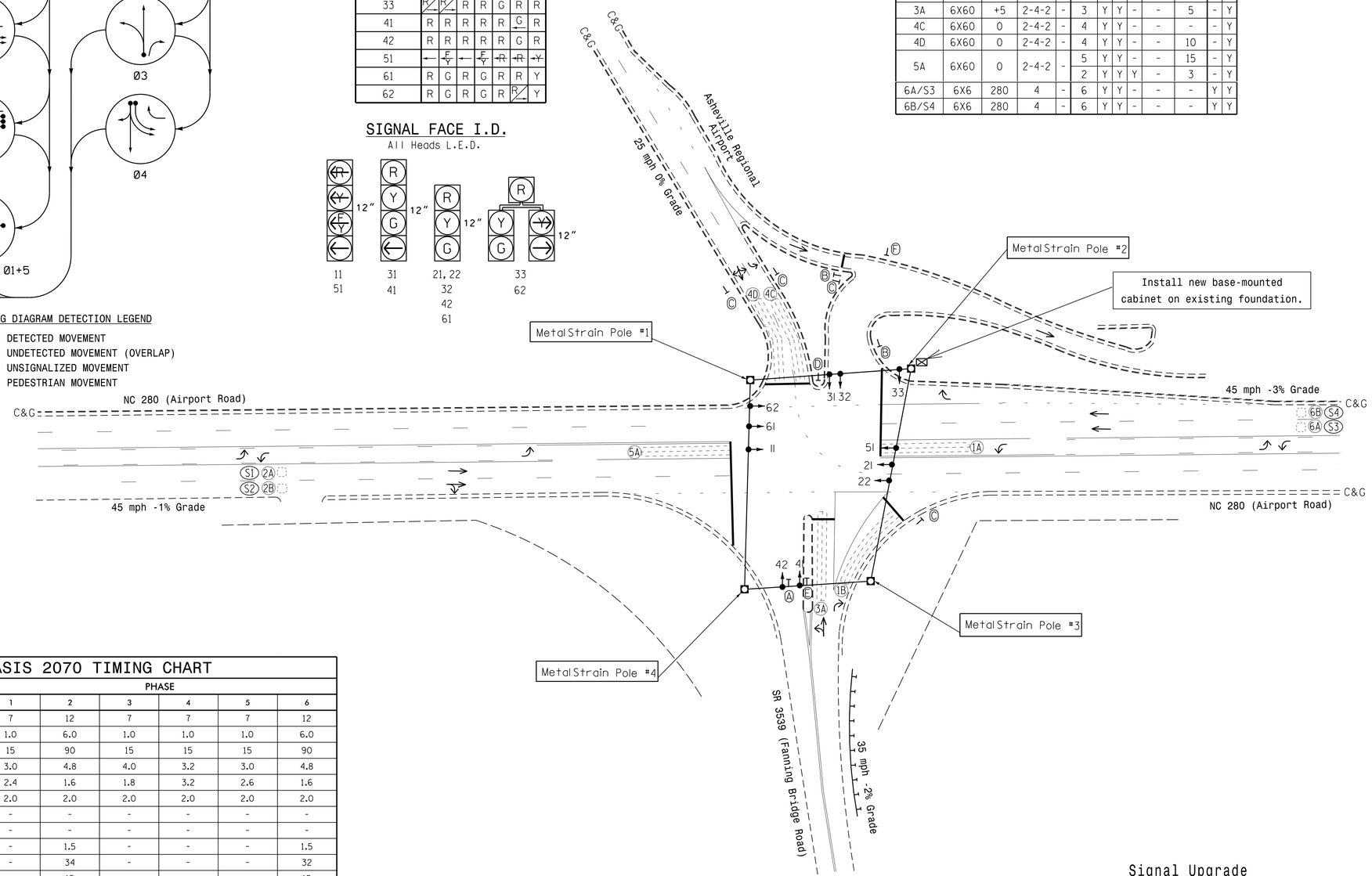
All Heads L.E.D.

OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

INDUCTIVE LOOPS					DETECTOR PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
1A	6X60	0	2-4-2	-	1	Y	Y	-	-	15	-	Y
					6	Y	Y	Y	-	3	-	Y
1B	6X60	0	2-4-2	-	1	Y	Y	-	-	15	-	Y
2A/S1	6X6	300	6	-	2	Y	Y	-	-	-	Y	Y
2B/S2	6X6	300	6	-	2	Y	Y	-	-	-	Y	Y
3A	6X60	+5	2-4-2	-	3	Y	Y	-	-	5	-	Y
4C	6X60	0	2-4-2	-	4	Y	Y	-	-	-	-	Y
4D	6X60	0	2-4-2	-	4	Y	Y	-	-	10	-	Y
5A	6X60	0	2-4-2	-	5	Y	Y	-	-	15	-	Y
					2	Y	Y	Y	-	3	-	Y
6A/S3	6X6	280	4	-	6	Y	Y	-	-	-	Y	Y
6B/S4	6X6	280	4	-	6	Y	Y	-	-	-	Y	Y

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "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 1 and/or phase 5 may be lagged.
4. The order of phase 3 and phase 4 may be reversed.
5. Set all detector units to presence mode.
6. In the event loop replacement, refer to ITS and Signals design Manual and submit a Plan of Record to Signal Design section.
7. Locate New cabinet so as not to obstruct sight distance of vehicle turning right on red.
8. Pavement markings are existing.
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	
	Metal Strain Pole	
A	Dual Turn and Through Arrows Sign	A
B	"YIELD" Sign (R1-2)	B
C	"DO NOT ENTER" Sign (R5-1)	C
D	Keep Right Sign (R4-7)	D
E	Left Arrow "ONLY" Sign (R3-5L)	E
F	No Left Turn Sign (R3-2)	F

OASIS 2070 TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6
Min Green 1 *	7	12	7	7	7	12
Extension 1 *	1.0	6.0	1.0	1.0	1.0	6.0
Max Green 1 *	15	90	15	15	15	90
Yellow Clearance	3.0	4.8	4.0	3.2	3.0	4.8
Red Clearance	2.4	1.6	1.8	3.2	2.6	1.6
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	-	-	-	-	-
Don't Walk 1	-	-	-	-	-	-
Seconds Per Actuation *	-	1.5	-	-	-	1.5
Max Variable Initial *	-	34	-	-	-	32
Time Before Reduction *	-	15	-	-	-	15
Time To Reduce *	-	30	-	-	-	30
Minimum Gap	-	3.0	-	-	-	2.7
Recall Mode	-	MIN. RECALL	-	-	-	MIN. RECALL
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW
Dual Entry	-	-	-	-	-	-
Simultaneous Gap	ON	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.

Signal Upgrade

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

NC 280 (Airport Road) at SR 3539 (Fanning Bridge Road)/ Asheville Regional Airport

Division 13 Buncombe County Fletcher

PLAN DATE: September 2016	REVIEWED BY: T. Williams
PREPARED BY: M. Mahbooba	REVIEWED BY:

SCALE 0 40 1"=40'

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 024393 ENGINEER TIMOTHY J. WILLIAMS

DocuSigned by: T. J. Williams 9/20/2016
STATUTORY ENGINEER DATE

SIG. INVENTORY NO. 13-0746

19-SEP-2016 12:00
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mmahbooba