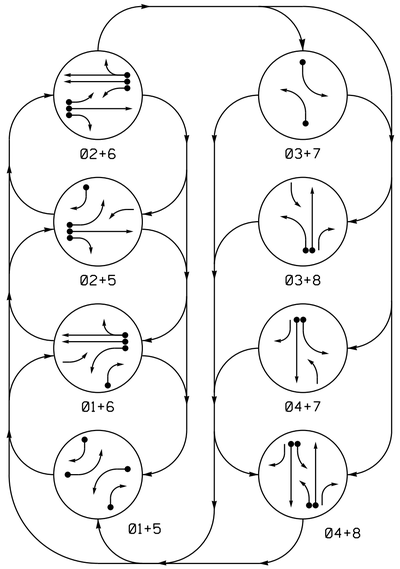
PROJECT REFERENCE NO.	SHEET NO.
U-4762	Sig.2.0

PHASING DIAGRAM

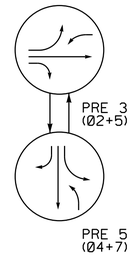


PHASING DIAGRAM DETECTION LEGEND

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

EV PREEMPT PHASES

(Medium Priority)



SIGNAL FACE I.D.

All Heads L.E.D.

TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8	EVP 3	EVP 5	FLASH
11	←	←	F Y	F Y	~~R~~	~~R~~	~~R~~	~~R~~	F Y	~~R~~	~~Y~~
21,22	R	R	G	G	R	R	R	R	G	R	Y
31	~~R~~	~~R~~	~~R~~	~~R~~	←	←	F Y	F Y	~~R~~	F Y	~~R~~
41	R	R	R	R	R	R	G	G	R	G	R
42	R/→	R	R/→	R	R	R	G	G	R	G	R
51	←	F Y	←	F Y	~~R~~	~~R~~	~~R~~	~~R~~	←	~~R~~	~~Y~~
61,62	R	G	R	G	R	R	R	R	R	R	Y
71	~~R~~	~~R~~	~~R~~	~~R~~	←	F Y	←	F Y	~~R~~	←	~~R~~
81	R	R	R	R	R	G	R	G	R	R	R
82	R/→	R/→	R	R	R	G	R	G	R	R	R

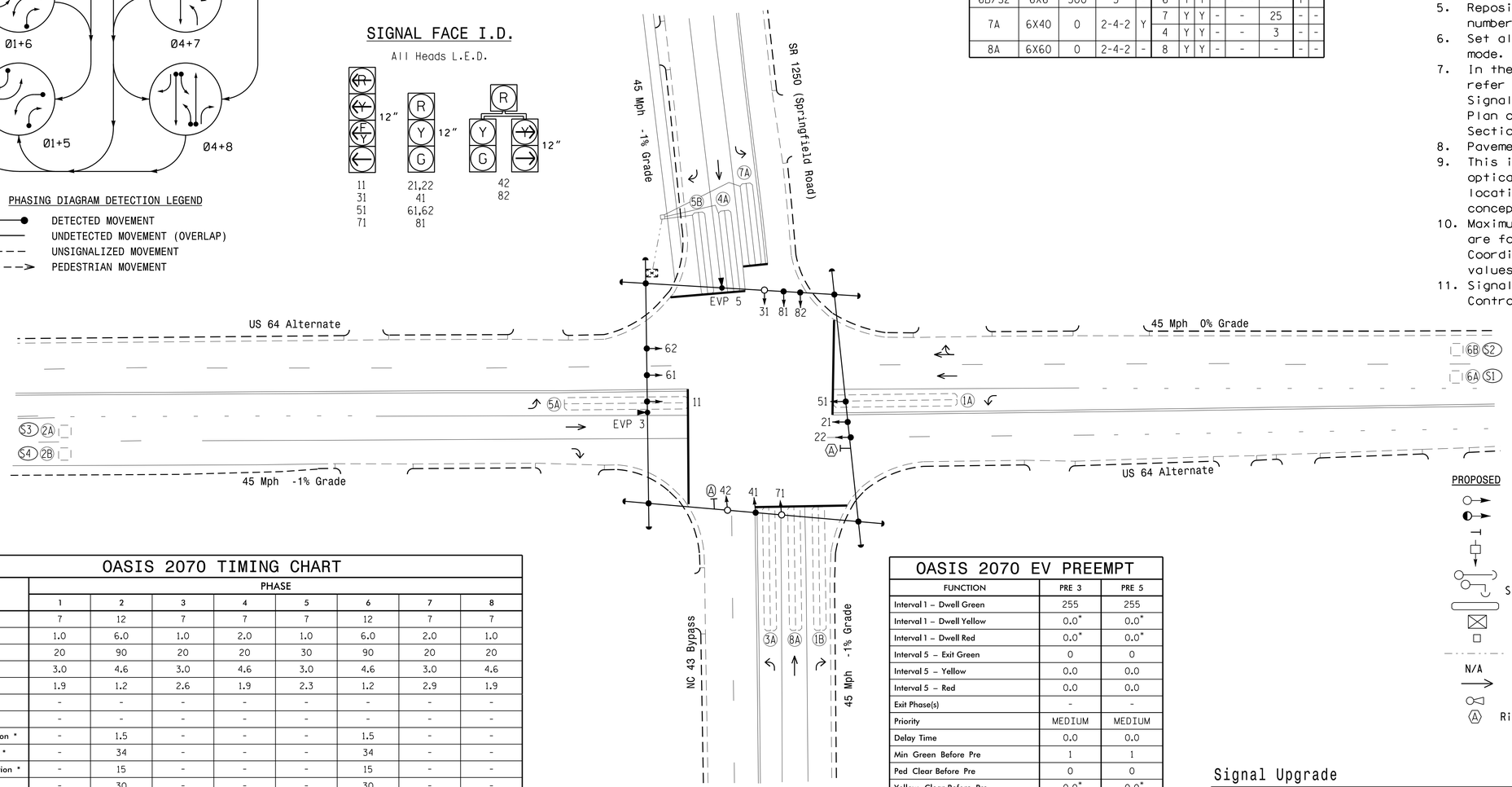
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

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	-	-
					6	Y	Y	Y	-	3	-	-
1B	6X60	0	2-4-2	-	1	Y	Y	-	-	15	-	-
2A/S3	6X6	300	5	-	2	Y	Y	-	-	-	Y	-
2B/S4	6X6	300	5	-	2	Y	Y	-	-	-	Y	-
3A	6X60	0	2-4-2	-	3	Y	Y	-	-	15	-	-
					8	Y	Y	-	-	3	-	-
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	-	-	-
5A	6X60	0	2-4-2	-	5	Y	Y	-	-	15	-	-
					2	Y	Y	Y	-	3	-	-
5B	6X40	0	2-4-2	Y	5	Y	Y	-	-	15	-	-
6A/S1	6X6	300	5	-	6	Y	Y	-	-	-	Y	-
6B/S2	6X6	300	5	-	6	Y	Y	-	-	-	Y	-
7A	6X40	0	2-4-2	Y	7	Y	Y	-	-	25	-	-
					4	Y	Y	-	-	3	-	-
8A	6X60	0	2-4-2	-	8	Y	Y	-	-	-	-	-

8 Phase w/ EV Preempt
Fully Actuated
Rocky Mount Signal System

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. Phase 3 and/or phase 7 may be lagged.
5. Reposition existing signal heads numbered 21,22,41,81 and 82.
6. Set all detector units to presence mode.
7. In the event of loop replacement, refer to the current ITS and Signals Design Manual and submit a Plan of Record to the Signal Design Section.
8. Pavement markings are existing.
9. This intersection features an optical preemption system. Shown locations of optical detectors are conceptual only.
10. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
11. Signal system data: Zone 7 Controller Asset # 0667.



OASIS 2070 TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6	7	8
Min Green 1 *	7	12	7	7	7	12	7	7
Extension 1 *	1.0	6.0	1.0	2.0	1.0	6.0	2.0	1.0
Max Green 1 *	20	90	20	20	30	90	20	20
Yellow Clearance	3.0	4.6	3.0	4.6	3.0	4.6	3.0	4.6
Red Clearance	1.9	1.2	2.6	1.9	2.3	1.2	2.9	1.9
Walk 1 *	-	-	-	-	-	-	-	-
Don't Walk 1	-	-	-	-	-	-	-	-
Seconds Per Actuation *	-	1.5	-	-	-	1.5	-	-
Max Variable 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	-	YELLOW	-	-	-	YELLOW	-	-
Dual Entry	-	-	-	ON	-	-	-	ON
Simultaneous Gap	ON	ON	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.

OASIS 2070 EV PREEMPT

FUNCTION	PRE 3	PRE 5
Interval 1 – Dwell Green	255	255
Interval 1 – Dwell Yellow	0.0*	0.0*
Interval 1 – Dwell Red	0.0*	0.0*
Interval 5 – Exit Green	0	0
Interval 5 – Yellow	0.0	0.0
Interval 5 – Red	0.0	0.0
Exit Phase(s)	-	-
Priority	MEDIUM	MEDIUM
Delay Time	0.0	0.0
Min Green Before Pre	1	1
Ped Clear Before Pre	0	0
Yellow Clear Before Pre	0.0*	0.0*
Red Clear Before Pre	0.0*	0.0*
Dwell Min Time	12	7
Enable Backup Protection	N	N
Ped Clear Through Yellow	N	N
Omit Overlaps	E	-
Preempt Extend**	5	5

* Time defaults to time used for phase during normal operation
** Program Timing on Optical Detection Unit

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	
	Emergency Vehicle Detector	
A	Right Arrow "ONLY" Sign (R3-5R)	A

Signal Upgrade

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

US 64 Alternate at NC 43 Bypass / SR 1250 (Springfield Road)

Division 4 Edgecombe County Rocky Mount

PLAN DATE:	January 2017	REVIEWED BY:	JPG
PREPARED BY:	Jeff Spence	REVIEWED BY:	

SCALE 1"=30' (0 – 30)

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 029904 ENGINEER JASON P. GALLOWAY

DocuSigned by: Jason P. Galloway F700EA704818410... 2/14/2017 DATE

SIG. INVENTORY NO. 04-0667

14-FEB-2017 08:27
R:\Traffic-Safety\Signals\Designs\Signals\04-0667\04U667_sig_dsn_2017mmdd.dgn
jrspence