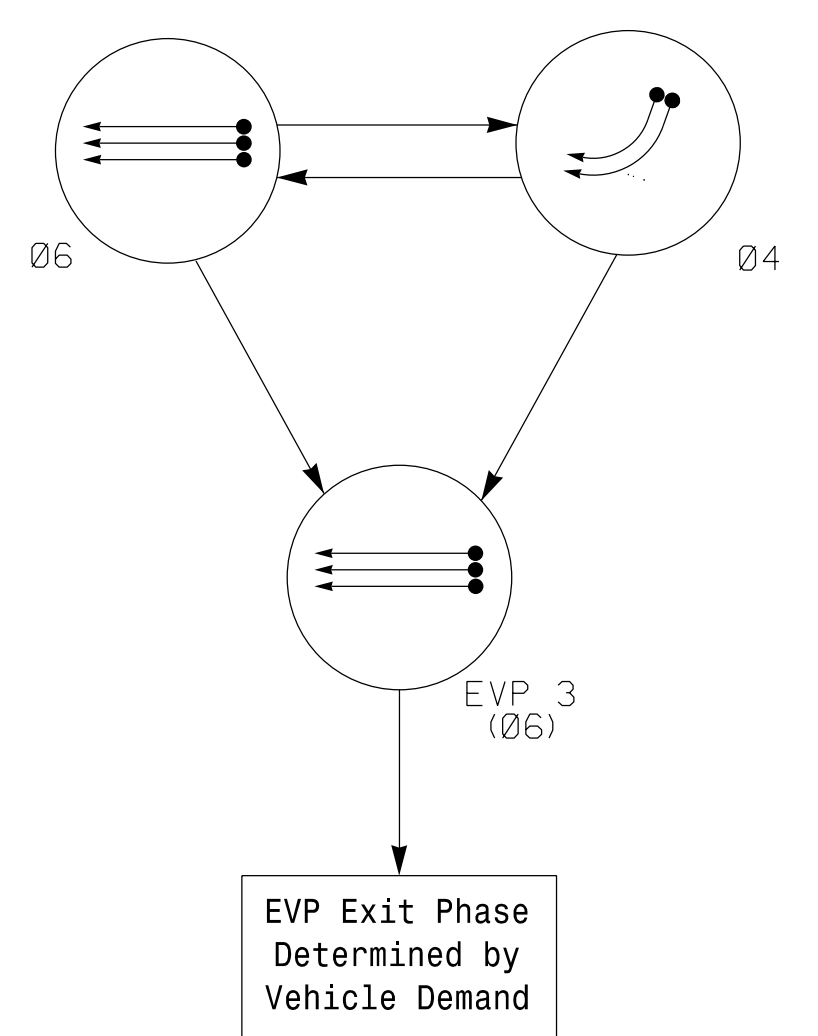


**PHASING DIAGRAM**

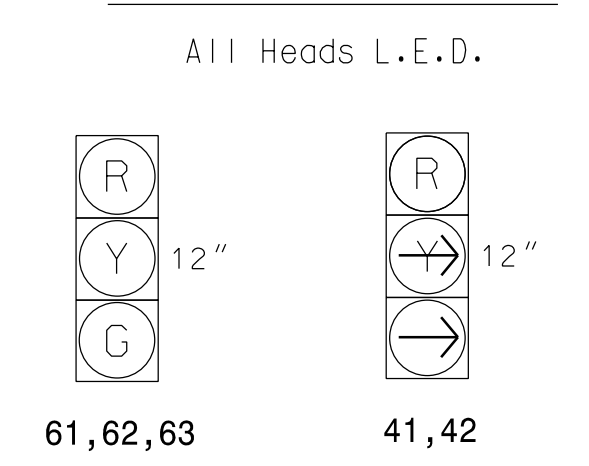


**PHASING DIAGRAM DETECTION LEGEND**  
 ● DETECTED MOVEMENT  
 ○ UNDETECTED MOVEMENT (OVERLAP)  
 - UNSIGNALIZED MOVEMENT  
 - PEDESTRIAN MOVEMENT

**TABLE OF OPERATION**

SIGNAL FACE	PHASE			
	04	06	EVP 3	RIGHT TURN
41, 42	R	R	R	R
61, 62, 63	R	G	G	Y

**SIGNAL FACE I.D.**



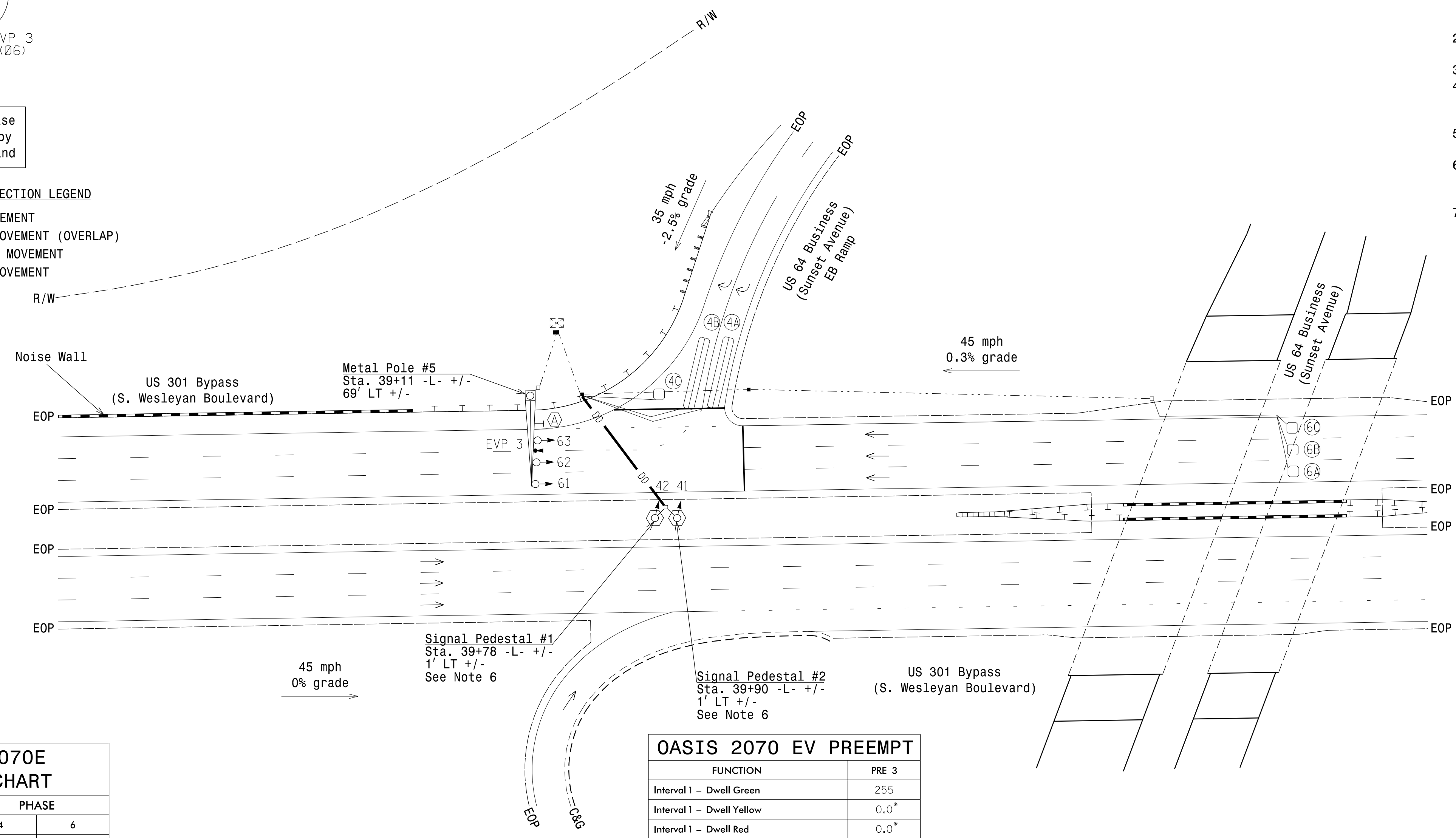
**OASIS 2070 LOOP & DETECTOR INSTALLATION CHART**

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	DETECTOR PROGRAMMING								
				NEW LOOP	PHASE	CALLING	EXTENSION	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD	
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	15	-	Y
4B	6X40	0	2-4-2	Y	4	Y	Y	-	-	15	-	Y
4C	6X6	5	3	Y	4	Y	Y	-	-	15	-	Y
6A	6X6	300	5	Y	6	Y	Y	-	-	-	-	-
6B	6X6	300	5	Y	6	Y	Y	-	-	-	-	-
6C	6X6	300	5	Y	6	Y	Y	-	-	-	-	-

**2 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. Set all detector units to presence mode.
4. This intersection features an optical preemption system. Shown locations of optical detectors are conceptual only.
5. Relocate EVP 3 detector on new mast arm. Reuse existing Phase Selector. See Project Special Provisions.
6. Pedestal mounted signal heads shall be mounted a minimum of 8' above the high point of the roadway surface elevation.
7. Maximum times shown in timing charts are for free-run operation only. Coordinated signal timing values supersede these values.



**OASIS 2070E TIMING CHART**

FEATURE	PHASE	
	4	6
Min Green 1 *	7	12
Extension 1 *	2.0	6.0
Max Green 1 *	30	60
Yellow Clearance	3.3	4.5
Red Clearance	1.8	1.3
Red Revert	2.0	2.0
Walk 1 *	-	-
Don't Walk 1	-	-
Seconds Per Actuation *	-	1.5
Max Variable Initial *	-	34
Time Before Reduction *	-	15
Time To Reduce *	-	30
Minimum Gap	-	3.0
Recall Mode	-	MIN RECALL
Vehicle Call Memory	-	YELLOW
Dual Entry	-	-
Simultaneous Gap	ON	ON

**OASIS 2070 EV PREEMPT**

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

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

**LEGEND**

PROPOSED	EXISTING
○ Traffic Signal Head	● Traffic Signal Head
○ Modified Signal Head	N/A
○ Sign	N/A
○ Metal Pole with Mastarm	○ Metal Pole with Mastarm
○ Signal Pedestal	○ Signal Pedestal
○ Inductive Loop Detector	○ Inductive Loop Detector
○ Controller & Cabinet	○ Controller & Cabinet
○ Junction Box	○ Junction Box
○ 2-in Underground Conduit	○ 2-in Underground Conduit
N/A Right of Way	N/A Right of Way
→ Directional Arrow	→ Directional Arrow
○ Emergency Vehicle Detector	○ Emergency Vehicle Detector
N/A Guardrail	N/A Guardrail
N/A Concrete Barrier	N/A Concrete Barrier
⊙ No Right Turn Sign (R3-1)	⊙ No Right Turn Sign (R3-1)

\* 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 - Final Design**

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**

Prepared for the Offices of:  
 TRANSPORTATION MOBILITY AND SAFETY DIVISION  
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
 Signal Design Section

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1616 EAST MILLBROOK ROAD, SUITE 160  
 RALEIGH, NORTH CAROLINA 27609  
 (919) 876-8888 NOBEE'S #F-0326

US 301 Byp (S. Wesleyan Blvd) at US 64 Bus (Sunset Ave) EB Ramp  
 Division 04 Nash County Rocky Mount

PLAN DATE: November 2016 REVIEWED BY: MB Toth  
 PREPARED BY: AM Encarnacion REVIEWED BY:

REVISIONS: INIT. DATE

SCALE: 1"=40'

Seal: NORTH CAROLINA PROFESSIONAL ENGINEER MELISSA B. TOOTH SEAL 025892

1/30/2017

SIG. INVENTORY NO. 04-1409

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