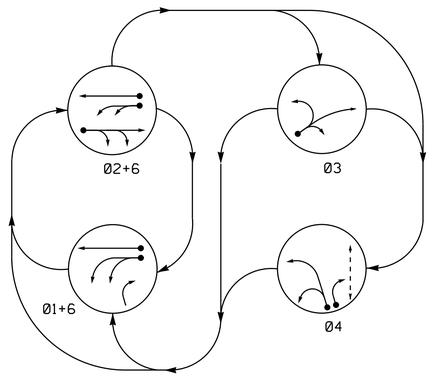
PROJECT REFERENCE NO.	SHEET NO.
U-4715 B	Sig. 88.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

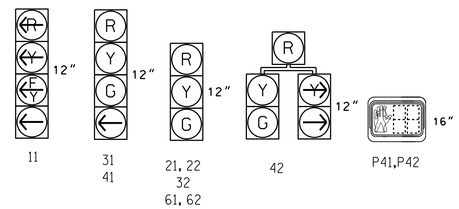
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE 01+6	PHASE 02+6	PHASE 03	PHASE 04	FLASH
11	~~←~~	~~F Y~~	~~R~~	~~R~~	~~Y~~
21,22	R	G	R	R	Y
31	R	R	G ←	R	R
32	R	R	G	R	R
41	R	R	R	G ←	R
42	R ↗	R	R	G	R
61, 62	G	G	R	R	Y
P41,P42	DW	DW	DW	W	DRK

SIGNAL FACE I.D.

All Heads L.E.D.



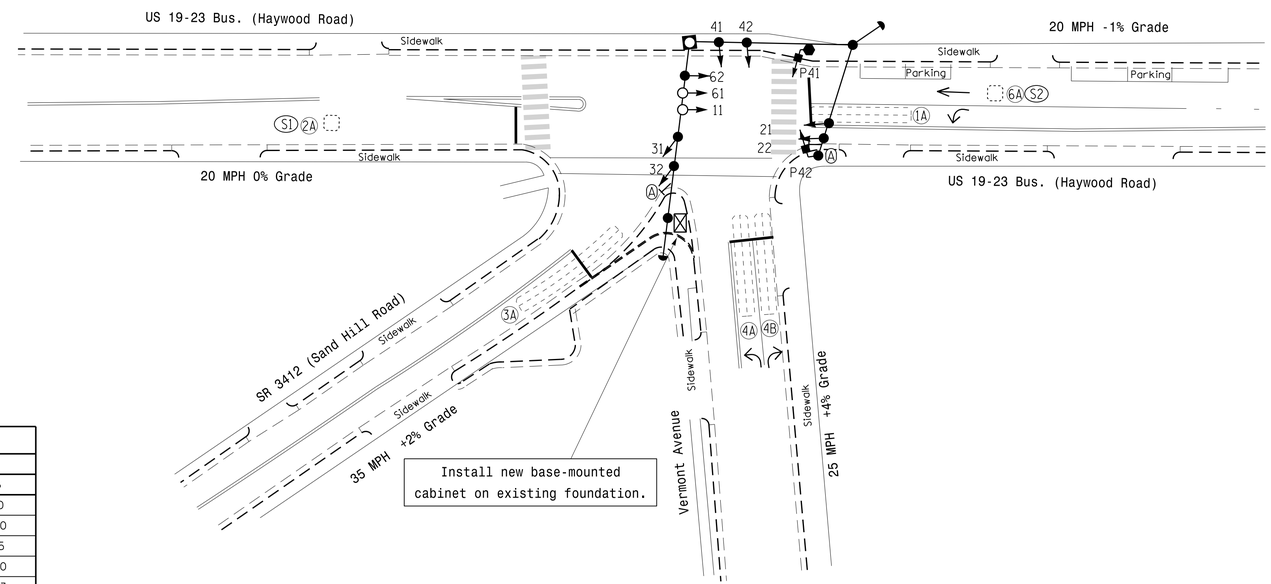
OASIS 2070 LOOP & DETECTOR INSTALLATION

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	6X40	0	2-4-2	-	1	Y	Y	-	-	15	-	Y
					6	Y	Y	-	-	-	-	Y
2A/S1	6X6	70	4	-	2	Y	Y	-	-	-	Y	Y
3A	6X50	+20	2-4-2	-	3	Y	Y	-	-	-	-	Y
4A	6X40	+10	2-4-2	-	4	Y	Y	-	-	3	-	Y
4B	6X40	+10	2-4-2	-	4	Y	Y	-	-	15	-	Y
6A/S2	6X6	70	4	-	6	Y	Y	-	-	-	Y	Y

4 Phase
Fully Actuated
Asheville 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 may be lagged.
4. The order of phase 3 and phase 4 may be reversed.
5. Reposition existing signal head numbered 62.
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. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
9. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
10. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
11. Pavement markings are existing.
12. Maximum times shown in timing 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	
	Type II Signal Pedestal	
	Metal Strain Pole	
	"NO TURN ON RED" Sign (R10-11)	

OASIS 2070 TIMING CHART

FEATURE	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 6
Min Green 1 *	7	10	7	7	10
Extension 1 *	1.0	3.0	1.0	1.0	3.0
Max Green 1 *	35	45	25	25	45
Yellow Clearance	3.0	3.0	3.0	3.0	3.0
Red Clearance	3.3	3.3	2.8	3.3	3.3
Red Revert	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	-	-	4	-
Don't Walk 1	-	-	-	10	-
Seconds Per Actuation *	-	-	-	-	-
Max Variable Initial *	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-
Time To Reduce *	-	-	-	-	-
Minimum Gap	-	-	-	-	-
Recall Mode	-	MIN RECALL	-	-	MIN RECALL
Vehicle Call Memory	-	YELLOW	-	-	YELLOW
Dual Entry	-	-	-	-	-
Simultaneous Gap	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

US 19 - 23 Bus. (Haywood Road) at SR 3412 (Sand Hill Road) and Vermont Avenue

Division 13 Buncombe County Asheville

PLAN DATE: June 2016	REVIEWED BY: PLA
PREPARED BY: C. Pierce	REVIEWED BY:

SCALE 1"=30' (0 – 30)

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 24393 ENGINEER TIMOTHY J. WILLIAMS

DocuSigned by: T. J. Williams 12/16/2016
97AD792EBE934CA
DATE

SIG. INVENTORY NO. 13-0404

16-DEC-2016 12:43
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