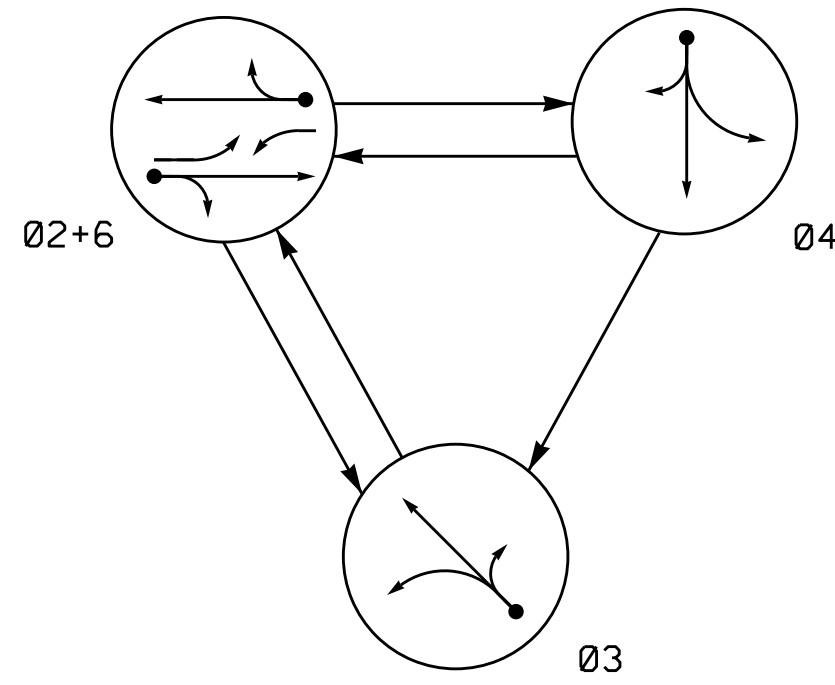


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

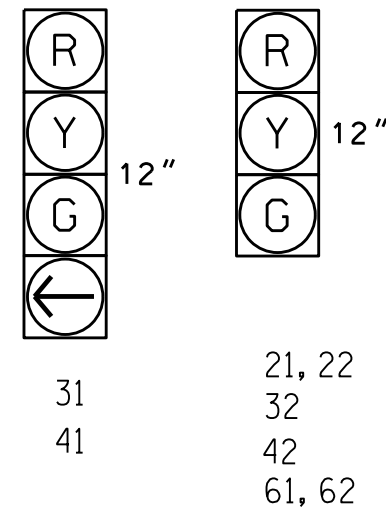
- ←●→ DETECTED MOVEMENT
- ←○→ UNDETECTED MOVEMENT (OVERLAP)
- ←- - - UN SIGNALIZED MOVEMENT
- ←- - - PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE			
	Ø 2+6	Ø 3	Ø 4	F L
21, 22	G	R	R	Y
31	R	G	R	R
32	R	G	R	R
41	R	R	G	R
42	R	R	G	R
61, 62	G	R	R	Y

SIGNAL FACE I.D.

All Heads L.E.D.



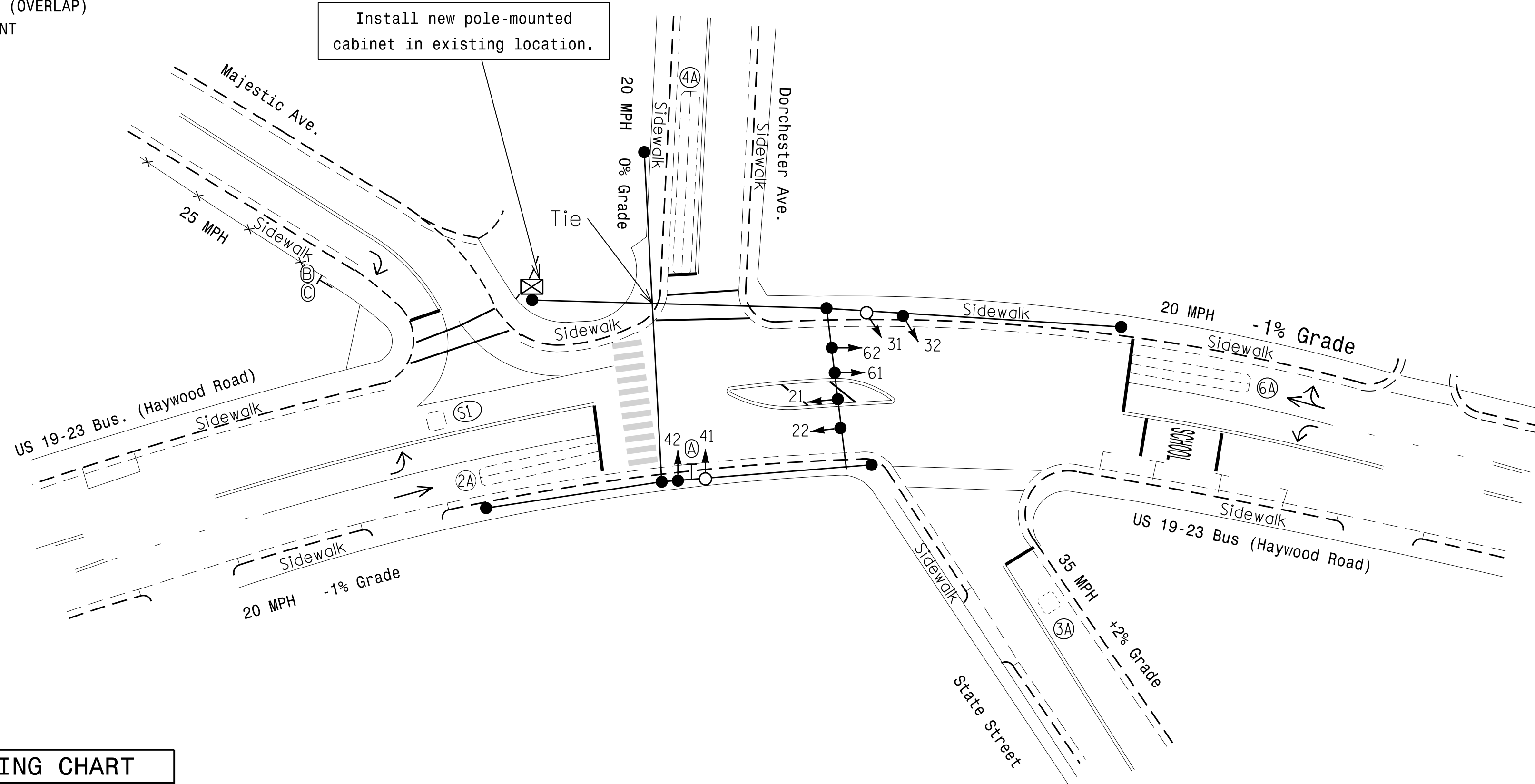
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING					SYSTEM LOOP	NEW CARD
					PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME		
2A	6X40	0	2-4-2	-	2	Y	Y	-	-	-	Y
3A	6X6	15	4	-	3	Y	Y	-	-	-	Y
4A	6X60	0	2-4-2	-	4	Y	Y	-	-	-	Y
6A	6X40	0	2-4-2	-	6	Y	Y	-	-	-	Y
SI	6X6	+230	5	-	-	-	-	-	-	-	Y

3 Phase Fully Actuated Asheville Signal System

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- The order of phase 3 and phase 4 may be reversed.
- Set all detector units to presence mode.
- 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.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



OASIS 2070 TIMING CHART

FEATURE	PHASE			
	2	3	4	6
Min Green 1 *	15	7	10	15
Extension 1 *	4.0	3.5	3.5	4.0
Max Green 1 *	50	30	30	50
Yellow Clearance	3.0	3.0	3.0	3.0
Red Clearance	4.3	4.2	4.0	4.3
Red Revert	2.0	2.0	2.0	2.0
Walk 1 *	-	-	-	-
Don't Walk 1	-	-	-	-
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	-	YELLOW
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.

LEGEND

- | PROPOSED | | EXISTING |
|----------|---------------------------------|----------|
| ○→ | Traffic Signal Head | ●→ |
| ○→ | Modified Signal Head | N/A |
| ○ | Sign | ○ |
| ○ | Pedestrian Signal Head | ○ |
| ○ | 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 | Fence | -x- |
| Ⓐ | "NO TURN ON RED" Sign (R10-11) | Ⓐ |
| Ⓑ | "STOP" Sign (R1-1) | Ⓑ |
| Ⓒ | Right Arrow "ONLY" Sign (R3-5R) | Ⓒ |

Signal Upgrade

Prepared in the Offices of:

 TRANSPORTATION MOBILITY AND SAFETY SOLUTIONS, INC.
 ENGINEERS OF NORTH CAROLINA
 Signal Design Section
 750 N. Greenfield Pkwy, Garner, NC 27529
 SCALE 1"=30'

US 19-23 BUS (Haywood Road) at
 Majestic Avenue/State Street & Dorchester Avenue
 Division 13 Buncombe County Asheville
 PLAN DATE: June 2016 REVIEWED BY: T. J. Williams
 PREPARED BY: C. Pierce REVIEWED BY:
 REVISIONS INIT. DATE
 S. J. Williams 8/8/2016
 SIG. INVENTORY NO. 13-0217

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
 SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 024393
 THOMAS J. WILLIAMS
 8/8/2016
 SIG. INVENTORY NO. 13-0217

08-AUG-2016 13:25
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 Design: J. Williams
 Signal Design Section