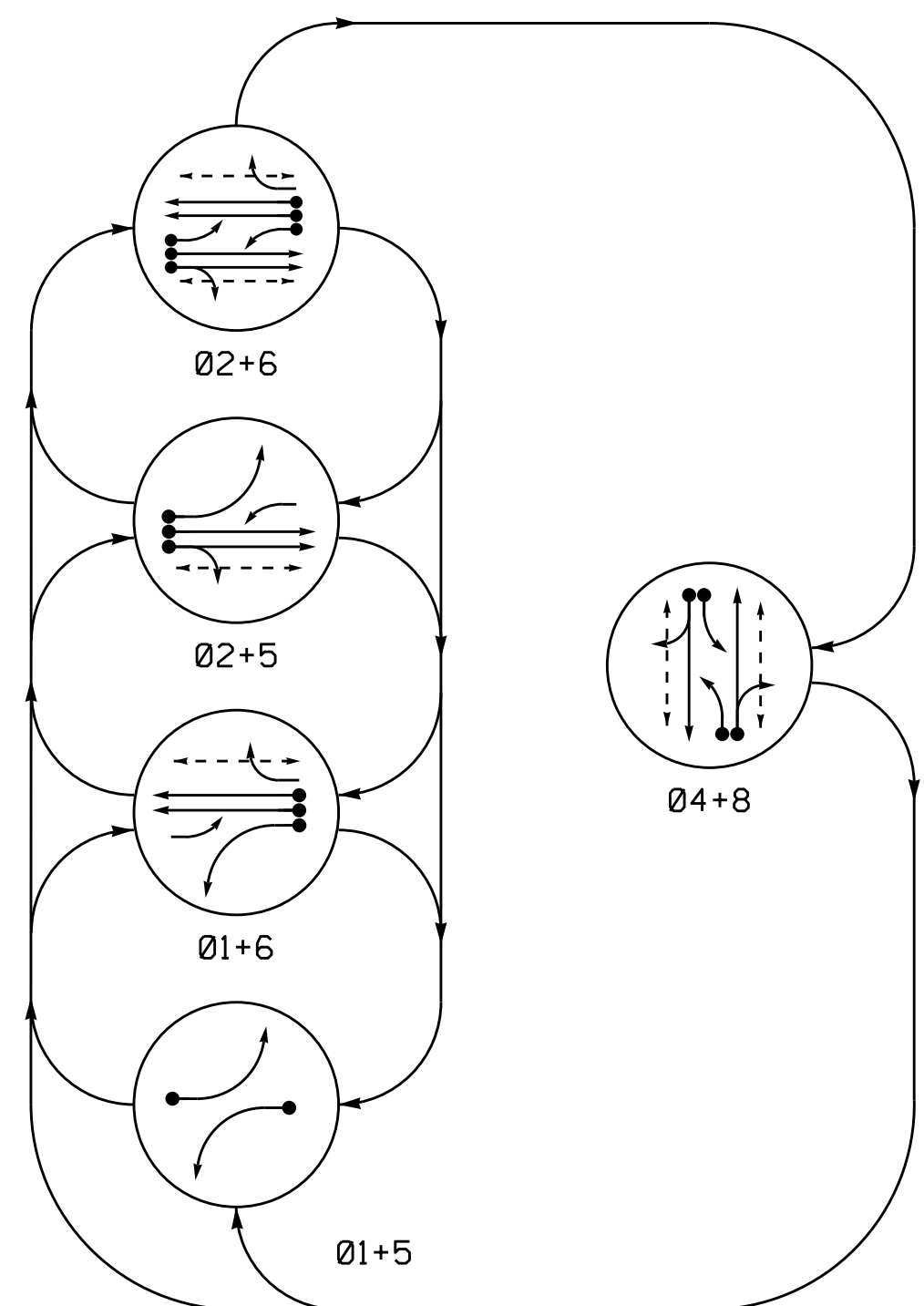


PHASING DIAGRAM



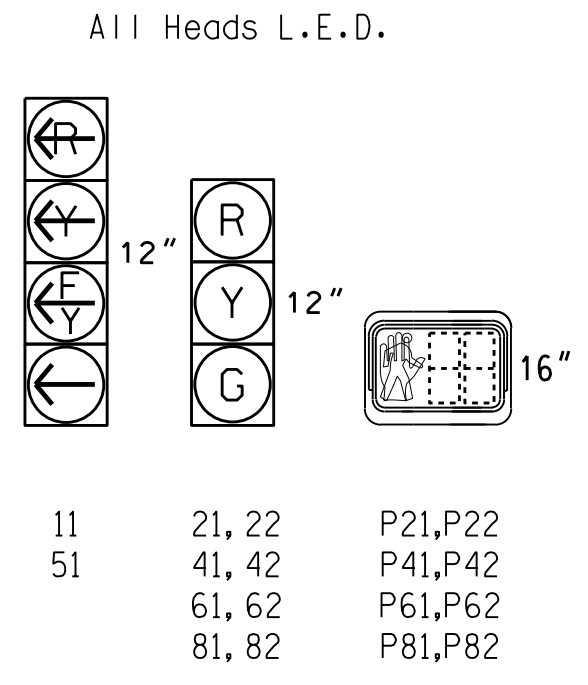
PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

SIGNAL FACE	PHASE					
	Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø4+8	F
11	—	—	—	—	—	—
21, 22	R	R	G	G	R	Y
41, 42	R	R	R	R	G	R
51	—	—	—	—	—	—
61, 62	R	G	R	G	R	Y
81, 82	R	R	R	R	G	R
P21, P22	DW	DW	W	W	DW	DRK
P41, P42	DW	DW	DW	DW	W	DRK
P61, P62	DW	W	DW	W	DW	DRK
P81, P82	DW	DW	DW	DW	W	DRK

Signal Face I.D.



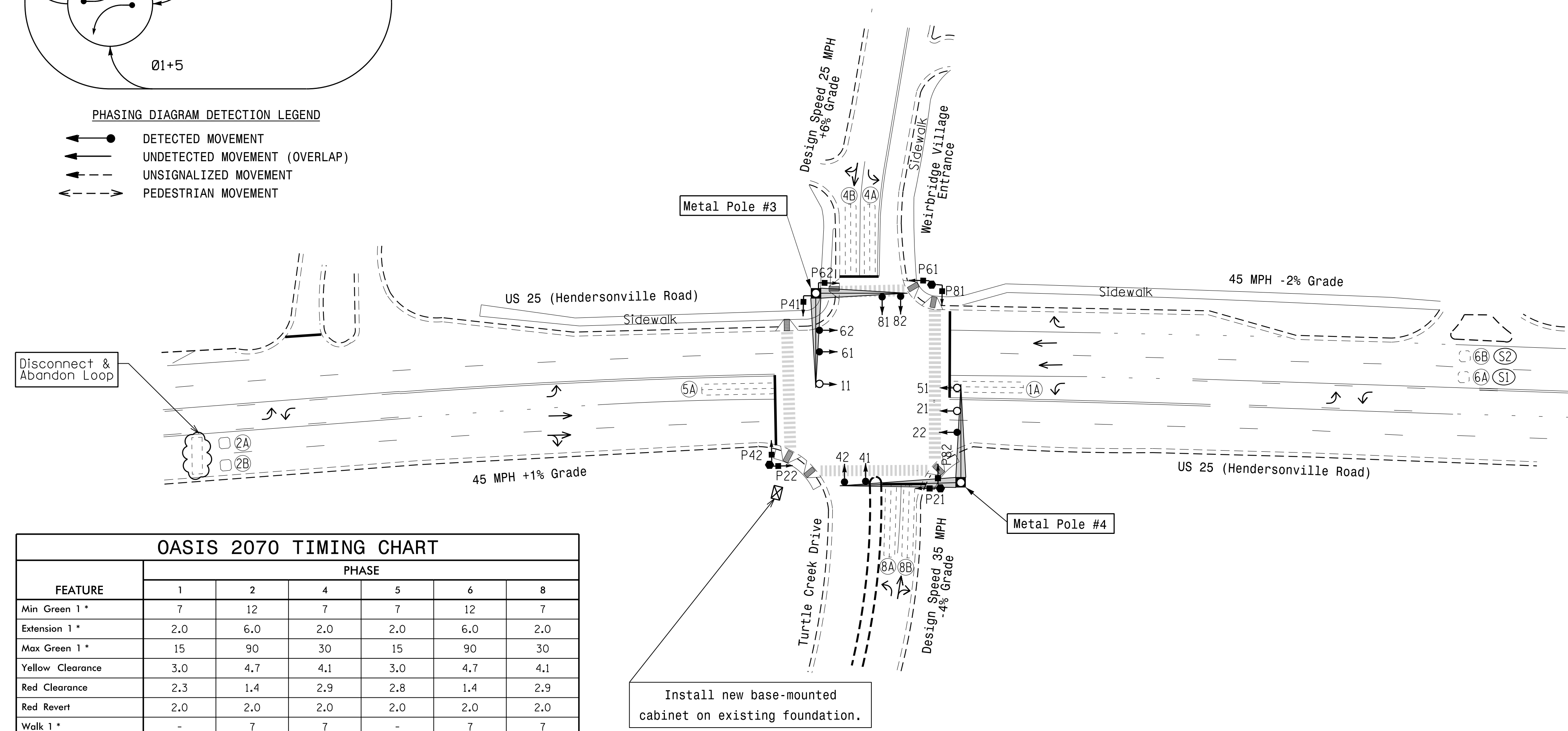
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING							
					PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
1A	6x40	2-4-2	0	-	1	Y	Y	-	-	15	-	Y
2A	6x6	4	300	Y	2	Y	Y	-	-	-	-	Y
2B	6x6	4	300	Y	2	Y	Y	-	-	-	-	Y
4A	6x40	2-4-2	0	-	4	Y	Y	-	-	3	-	Y
4B	6x40	2-4-2	0	-	4	Y	Y	-	-	10	-	Y
5A	6x40	2-4-2	0	-	5	Y	Y	-	-	15	-	Y
6A/S1	6x6	EXIST	300	-	6	Y	Y	-	-	-	-	Y
6B/S2	6x6	EXIST	300	-	6	Y	Y	-	-	-	-	Y
8A	6x40	2-4-2	0	-	8	Y	Y	-	-	-	-	Y
8B	6x40	2-4-2	0	-	8	Y	Y	-	-	10	-	Y

5 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 and/or phase 5 may be lagged.
4. Reposition existing signal head numbered 22.
5. Abandon existing loop as shown.
6. Set all detector units to presence mode.
7. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
8. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
9. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
10. Pavement markings are existing.
11. 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					
	1	2	4	5	6	8
Min Green 1 *	7	12	7	7	12	7
Extension 1 *	2.0	6.0	2.0	2.0	6.0	2.0
Max Green 1 *	15	90	30	15	90	30
Yellow Clearance	3.0	4.7	4.1	3.0	4.7	4.1
Red Clearance	2.3	1.4	2.9	2.8	1.4	2.9
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	7	7	-	7	7
Don't Walk 1	-	13	16	-	7	21
Seconds Per Actuation *	-	1.5	-	-	1.5	-
Max Variable Initial *	-	34	-	-	34	-
Time Before Reduction *	-	30	-	-	30	-
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

* 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	● N/A
○ Modified Signal Head	○ N/A
○ Sign	○ N/A
○ Pedestrian Signal Head With Push Button & Sign	○ N/A
○ Signal Pole with Guy	○ N/A
○ Signal Pole with Sidewalk Guy	○ N/A
○ Inductive Loop Detector	○ N/A
○ Controller & Cabinet	○ N/A
○ Junction Box	○ N/A
○ 2-in Underground Conduit	○ N/A
○ Right of Way	○ N/A
○ Directional Arrow	○ N/A
○ Pavement Marking Arrow	○ N/A
○ Wheelchair Ramp	○ N/A
○ Metal Pole with Mastarm	○ N/A
○ Pedestrian Signal Pedestal	○ N/A

Signal Upgrade

Prepared In the Offices of:

TRANSPORTATION MOBILITY AND SAFETY SOLUTIONS
 A DIVISION OF NORTH CAROLINA TRANSPORTATION DESIGN GROUP

US 25 (Hendersonville Rd) at Turtle Creek Dr/ Weirbridge Village Entrance

Division 13 Buncombe County Asheville

PLAN DATE: February 2016 REVIEWED BY: P. Alexander

PREPARED BY: M. Mahbooba REVIEWED BY:

750 N. Greenfield Pkwy, Garner, NC 27529

SCALE: 0 40 1"=40'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 024393

DocuSigned by: J. G. Williams 8/18/2016

SIG. INVENTORY NO. 13-0508

18-AUG-2016 09:27
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