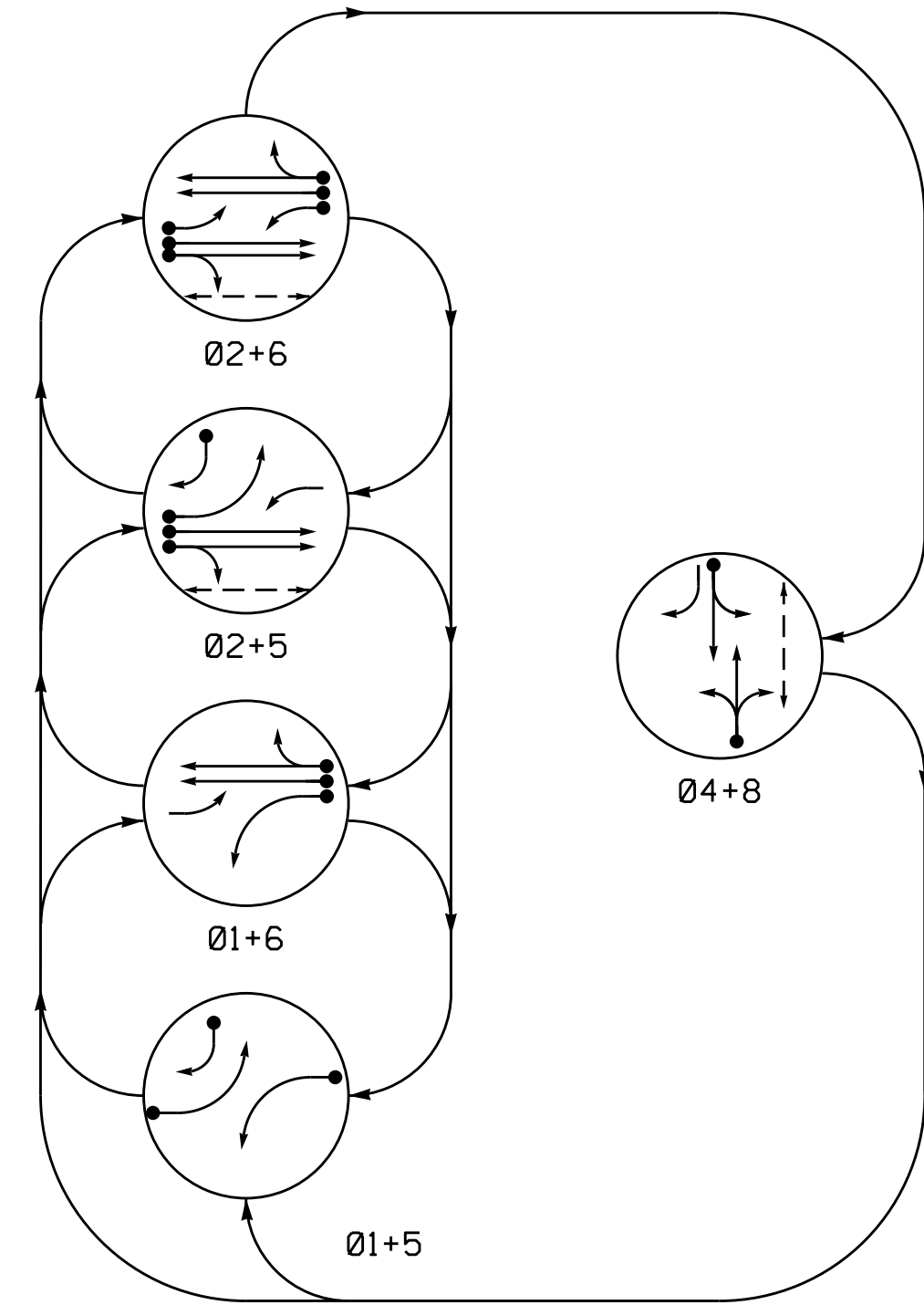


PHASING DIAGRAM

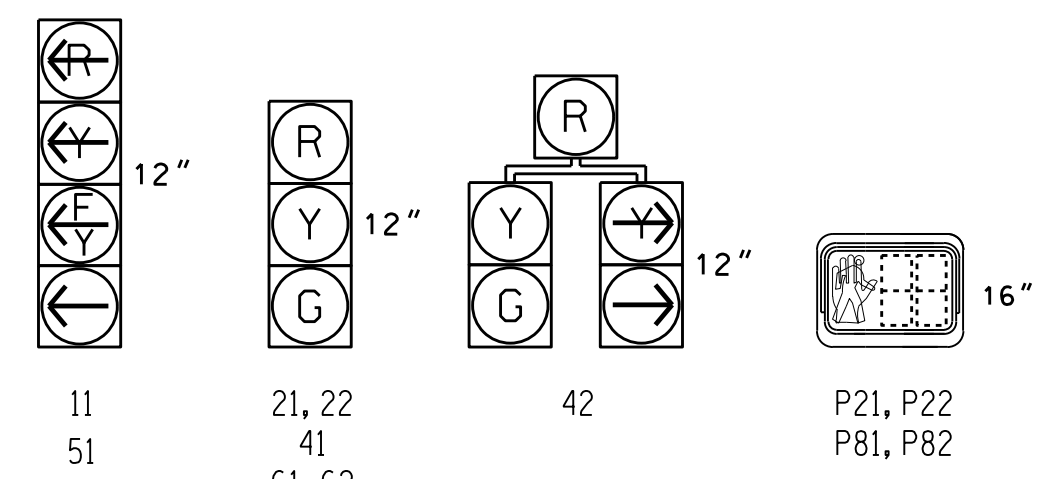


PHASING DIAGRAM DETECTION LEGEND
 ● DETECTED MOVEMENT
 ○ UNDETECTED MOVEMENT (OVERLAP)
 - - - UNSIGNALIZED MOVEMENT
 - - - PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE					
	01+5	01+6	02+5	02+6	04+8	FL
11	←	←	←	←	←	←
21, 22	R	R	G	G	R	Y
41	R	R	R	R	G	R
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
P81, P82	DW	DW	DW	DW	W	DRK

SIGNAL FACE I.D.
All Heads L.E.D.



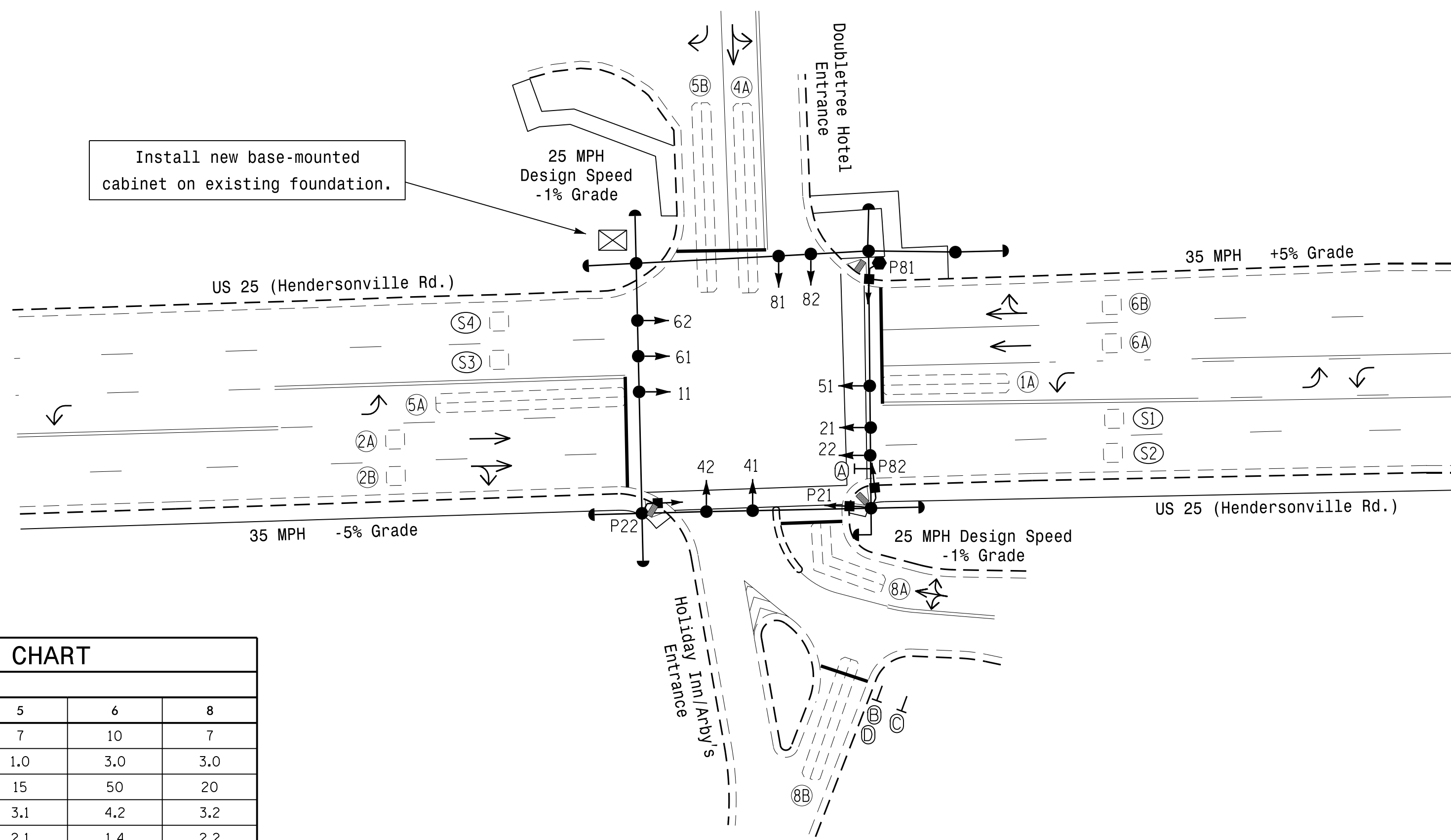
OASIS 2070 LOOP & DETECTOR INSTALLATION

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	0	2-4-2	-	1	Y	Y	-	-	15	-	Y
2A, 2B	6X6	70	EXIST	-	2	Y	Y	-	-	-	-	Y
4A	6X60	+10	2-4-2	-	4	Y	Y	-	-	3	-	Y
5A	6X60	0	2-4-2	-	2	Y	Y	-	-	-	-	Y
5B	6X60	+10	2-4-2	-	5	Y	Y	-	-	15	-	Y
6A, 6B	6X6	70	4	-	6	Y	Y	-	-	-	-	Y
8A	6X40	0	2-4-2	-	8	Y	Y	-	-	5	-	Y
8B	6X40	+5	2-4-2	-	8	Y	Y	-	-	5	-	Y
S1	6X6	+150	EXIST	-	-	-	-	-	-	-	-	Y
S2	6X6	+150	EXIST	-	-	-	-	-	-	-	-	Y
S3	6X6	+120	EXIST	-	-	-	-	-	-	-	-	Y
S4	6X6	+120	EXIST	-	-	-	-	-	-	-	-	Y

5 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.
- Phase 1 and/or phase 5 may be lagged.
- 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.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Pavement markings are existing.
- 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	10	7	7	10	7
Extension 1 *	2.0	3.0	1.0	1.0	3.0	3.0
Max Green 1 *	15	50	20	15	50	20
Yellow Clearance	3.0	4.2	3.2	3.1	4.2	3.2
Red Clearance	1.9	1.4	2.2	2.1	1.4	2.2
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	7	-	-	-	7
Don't Walk 1	-	15	-	-	-	19
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	-	-	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
○ Type II Signal Pedestal	○ N/A
○ Curb Ramp	○ N/A
○ No Turn on Red Sign (R10-11)	○ N/A
○ Stop Sign (R1-1)	○ N/A
○ Do Not Block Intersection Sign (R10-7)	○ N/A
○ Cross Traffic Does Not Stop Sign (W4-4P)	○ N/A

Signal Upgrade

Prepared for the Offices of:
US 25 (Hendersonville Road) at Double Tree/MAHEC/Holiday Inn/Arby's

Division 13 Buncombe County Asheville
 PLAN DATE: May 2016 REVIEWED BY: P.L. Alexander
 PREPARED BY: R.N. Zinser REVIEWED BY:

750 N. Greenfield Pkwy, Garner, NC 27529
 SCALE 0 30
 1"=30'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
 RICHARD N. ZINSER
 ENGINEER
 043914
 8/9/2016
 DATE
 SIG. INVENTORY NO. 13-0240

09-AUG-2016 10:36
 S:\ITS\ASU\13_Signal\Signal Design\Signal System\Signal Design\13-0240\130240_sig_dsn_2015mdd-dgn.rvt
 R.N. ZINSER