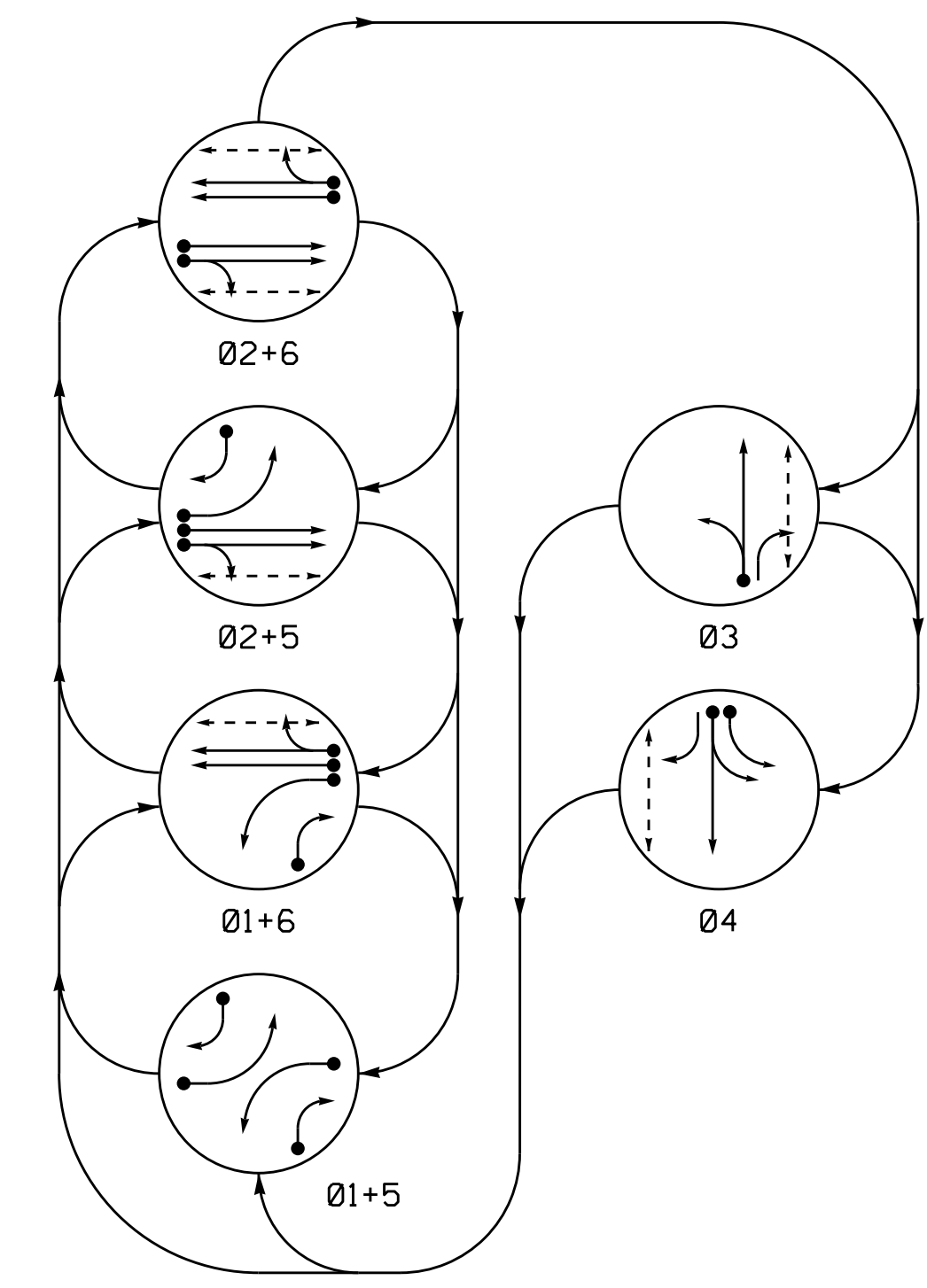


6 Phase Fully Actuated Asheville Signal System

PHASING DIAGRAM



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

SIGNAL FACE I.D.

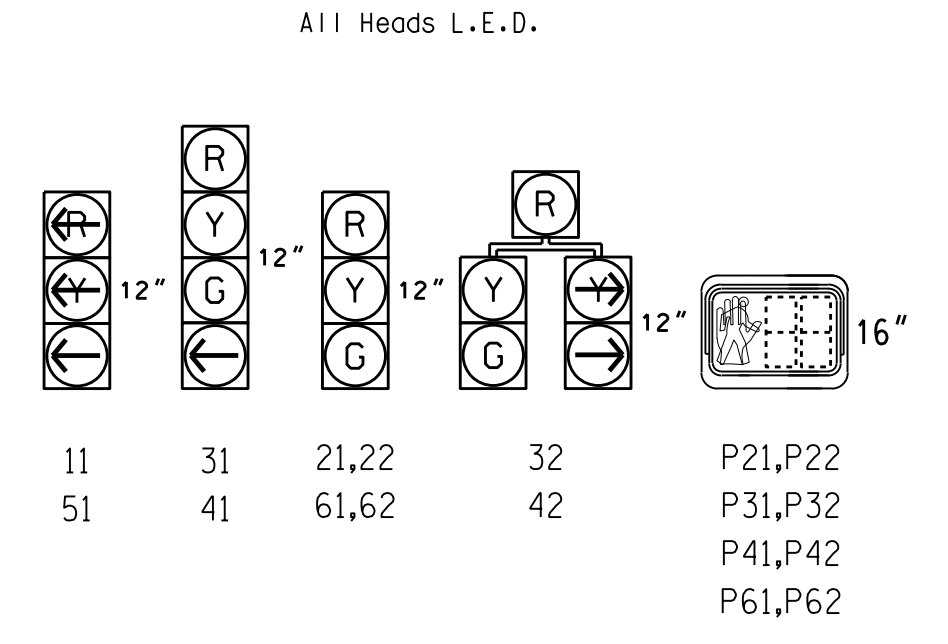


TABLE OF OPERATION

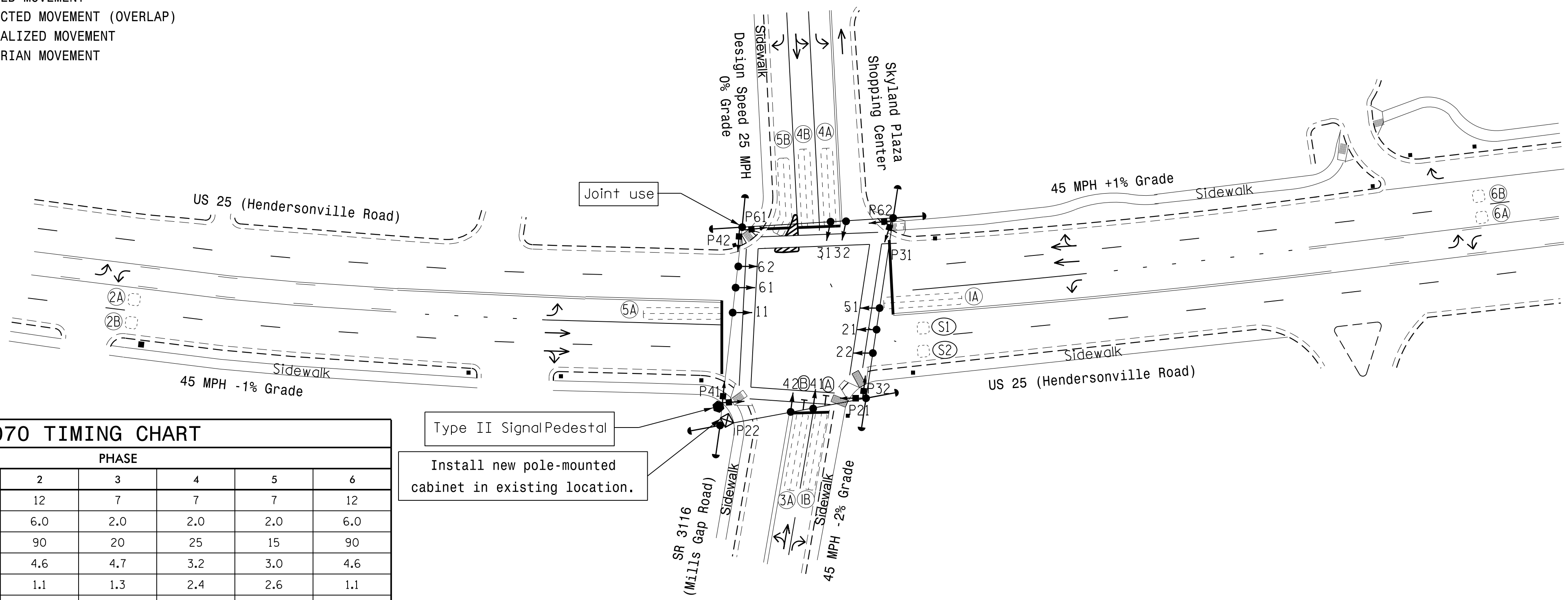
SIGNAL FACE	PHASE					
	01+5	01+6	02+5	02+6	03	04
11	—	—	—	—	—	—
21,22	R	R	G	G	R	R
31	R	R	R	R	G	R
32	R	R	R	R	G	R
41	R	R	R	R	R	G
42	R	R	R	R	R	G
51	—	—	—	—	—	—
61,62	R	G	R	G	R	R
P21,P22	DW	DW	W	W	DW	DRK
P31,P32	DW	DW	DW	DW	W	DRK
P41,P42	DW	DW	DW	DW	DW	DRK
P61,P62	DW	W	DW	W	DW	DRK

OASIS 2070 LOOP & DETECTOR INSTALLATION

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	DETECTOR PROGRAMMING								
				NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
1A	6x40	+5	2-4-2	-	1	Y	Y	-	-	3	-	Y
1B	6x40	0	2-4-2	-	1	Y	Y	-	-	15	-	Y
2A	6x6	300	4	-	2	Y	Y	-	-	-	-	Y
2B	6x6	300	4	-	2	Y	Y	-	-	-	-	Y
3A	6x40	0	2-4-2	-	3	Y	Y	-	-	3	-	Y
4A	6x40	0	2-4-2	-	4	Y	Y	-	-	3	-	Y
4B	6x40	0	2-4-2	-	4	Y	Y	-	-	-	-	Y
5A	6x40	0	2-4-2	-	5	Y	Y	-	-	3	-	Y
5B	6x40	+5	2-4-2	-	5	Y	Y	-	-	15	-	Y
6A	6x6	300	5	-	6	Y	Y	-	-	-	-	Y
6B	6x6	300	5	-	6	Y	Y	-	-	-	-	Y
S1	6x6	+100	3	-	-	-	-	-	-	-	-	Y
S2	6x6	+100	3	-	-	-	-	-	-	-	-	Y

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.
- The order of phase 3 and phase 4 may be reversed.
- Set all detector units to presence mode.
- 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	3	4	5	6
Min Green 1 *	7	12	7	7	7	12
Extension 1 *	2.0	6.0	2.0	2.0	2.0	6.0
Max Green 1 *	15	90	20	25	15	90
Yellow Clearance	3.0	4.6	4.7	3.2	3.0	4.6
Red Clearance	2.4	1.1	1.3	2.4	2.6	1.1
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	4	4	4	-	4
Don't Walk 1	-	9	16	20	-	16
Seconds Per Actuation *	-	1.5	-	-	-	1.5
Max Variable Initial *	-	34	-	-	-	34
Time Before Reduction *	-	15	-	-	-	15
Time To Reduce *	-	30	-	-	-	30
Minimum Gap	-	3.0	-	-	-	3.0
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW
Dual Entry	-	-	-	-	-	-
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	⊥ Sign
⊥ Pedestrian Signal Head With Push Button & Sign	⊥ Pedestrian Signal Head With Push Button & Sign
○ → Signal Pole with Guy	● → Signal Pole with Guy
○ → Signal Pole with Sidewalk Guy	● → Signal Pole with Sidewalk Guy
⊠ 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 with Marker	- - - Right of Way with Marker
→ Directional Arrow	→ Directional Arrow
○ Type II Signal Pedestal	● Type II Signal Pedestal
⊠ Wheelchair Ramp	⊠ Wheelchair Ramp
⊠ Left Arrow "ONLY" Sign (R3-5L)	⊠ Left Arrow "ONLY" Sign (R3-5L)
⊠ Combined Through and Left Arrow Sign (R3-6L)	⊠ Combined Through and Left Arrow Sign (R3-6L)

Type II Signal Pedestal
 Install new pole-mounted cabinet in existing location.

Signal Upgrade

Prepared In the Offices of:
 TRANSPORTATION MOBILITY AND SAFETY SOLUTIONS
 ENGINEERS OF NORTH CAROLINA
 Signal Design Section
 750 N. Greenfield Pkwy, Garner, NC 27529

US 25 (Hendersonville Road) at SR 3116 (Mills Gap Road)/ Skyland Plaza Shopping Center
 Division 13 Buncombe County Skyland
 PLAN DATE: January 2016 REVIEWED BY: T. Williams
 PREPARED BY: M. Mahbooba REVIEWED BY:

REVISIONS: _____ INIT: _____ DATE: _____

DocuSign by: S. J. Williams 9/16/2016
 07407828E834CA DATE: _____
 SIG. INVENTORY NO. 13-0063

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 024393
 T. WILLIAMS

15-SEP-2016 15:16
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