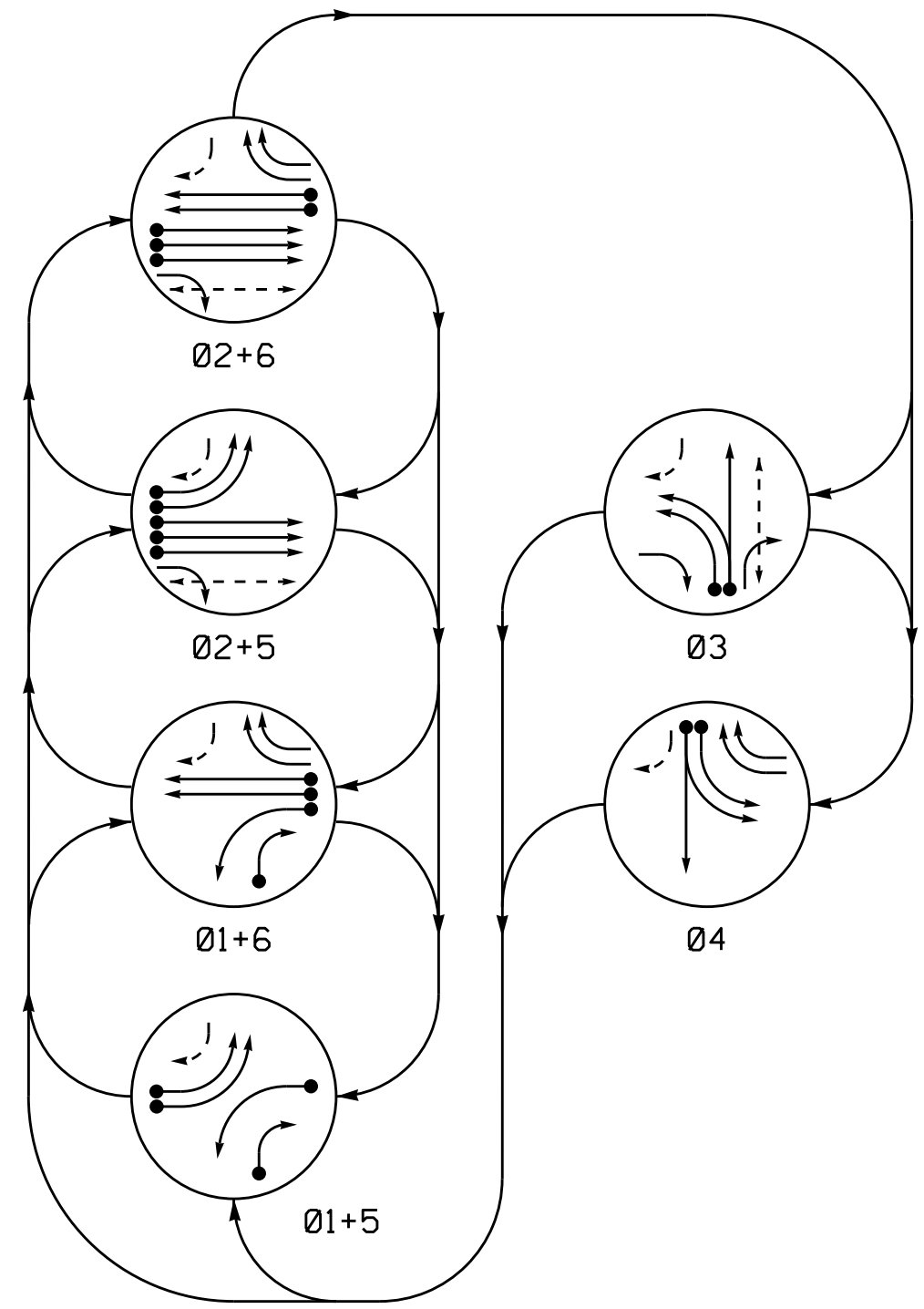
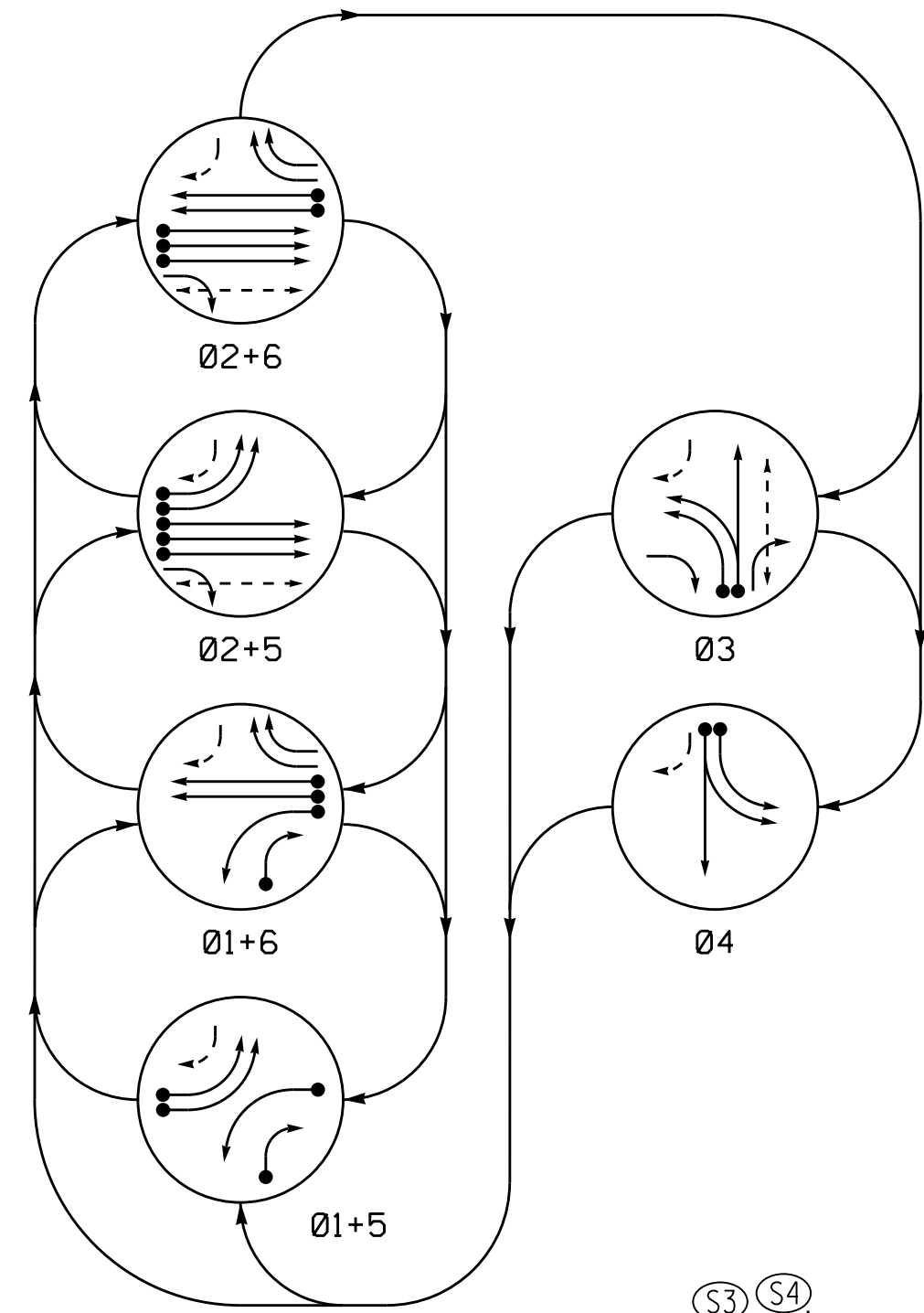


DEFAULT PHASING DIAGRAM



ALTERNATE PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE						
	01+5	01+6	02+5	02+6	03	04	F L A S H
11	←	←	←	←	←	←	←
21, 22, 23	R	R	G	G	R	R	Y
24	R	R	F	F	←	←	←
31	←	←	←	←	←	←	←
32	R	R	R	R	G	R	R
33	R	R	R	R	G	R	R
41	←	←	←	←	←	←	←
42	R	R	R	R	G	R	R
43	R	R	R	R	R	G	R
51, 52	←	←	←	←	←	←	←
61, 62	R	G	R	G	R	R	Y
63, 64	R	←	R	←	R	←	←
P21, P22	DW	DW	W	W	DW	DRK	DRK
P31, P32	DW	DW	DW	DW	W	DW	DRK
SIGN A	OFF	OFF	OFF	OFF	OFF	OFF	OFF

SE-PAC 2070 LOOP & DETECTOR UNIT INSTALLATION CHART

LOOP NO.	SIZE (ft)	TURNS	DIST. FROM STOPBAR (ft)	NEW	EXISTING	ASSIGNED PHASE	TIMING		DETECTOR PROGRAMMING							STATUS			
							DELAY	EXTEND (STRETCH)	OPERATION MODE							SYSTEM	NEW	EXISTING	
									VEHICLE	PEDESTRIAN	1 CALL	2	3	4	5				6
1A	6X40	2-4-2	0	X	-	1	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-
1B	6X40	2-4-2	0	X	-	1	15 SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-
2A	6X6	5	300	X	-	2	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-
2B	6X6	5	300	X	-	2	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-
2C	6X6	5	300	X	-	2	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-
3A	6X40	2-4-2	0	X	-	3	3 SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-
3B	6X40	2-4-2	0	X	-	3	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-
4A	6X40	2-4-2	0	X	-	4	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-
4B	6X40	2-4-2	0	X	-	4	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-
5A	6X40	2-4-2	0	X	-	5	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-
5B	6X40	2-4-2	0	X	-	5	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-
6A	6X6	5	300	X	-	6	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-
6B	6X6	5	300	X	-	6	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-
S1	6X6	5	300	X	-	-	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	X
S2	6X6	5	300	X	-	-	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	X
S3	6X6	4	+100'	-	X	-	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	X
S4	6X6	4	+100'	-	X	-	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	X
S5	6X6	5	400	X	-	-	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	X
S6	6X6	5	400	X	-	-	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	X

Measured from Extended Tangent on End of Ramp

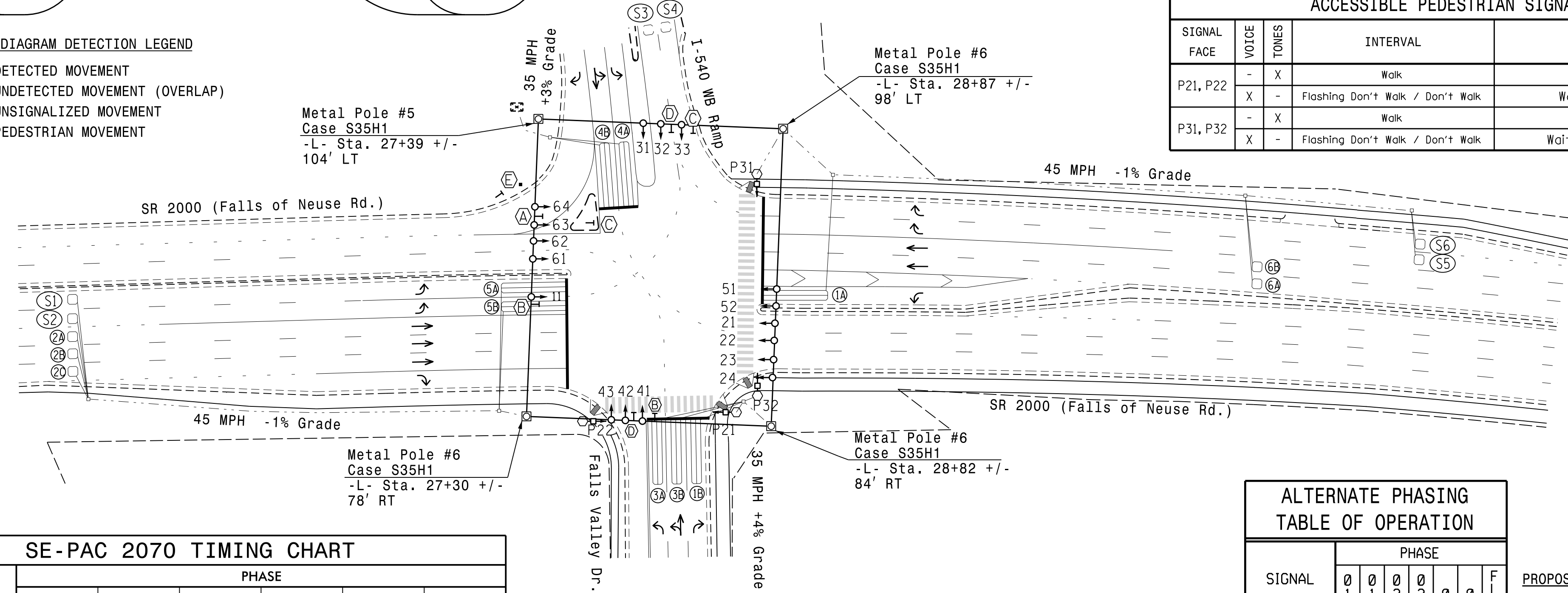
ACCESSIBLE PEDESTRIAN SIGNAL OPERATION

SIGNAL FACE	VOICE TONES	INTERVAL	SPEECH MESSAGE
P21, P22	- X	Walk	(Percussive Tone)
X	-	Flashing Don't Walk / Don't Walk	Wait. Wait to cross Falls Valley.
P31, P32	- X	Walk	(Percussive Tone)
X	-	Flashing Don't Walk / Don't Walk	Wait. Wait to cross Falls of Neuse.

6 Phase Fully Actuated (Raleigh Signal System)

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
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. The order of phase 3 and phase 4 may be reversed.
5. Set all detector units to presence mode.
6. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
7. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
8. The Division (City) Traffic Engineer will determine the hours of use for each phasing plan.
9. During Alternate Phasing sign A will illuminate when phase 3, 4, or 5 is Green. It will also stay illuminated when transitioning between these phases. It will not illuminate at any point in the Default Phasing.
10. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

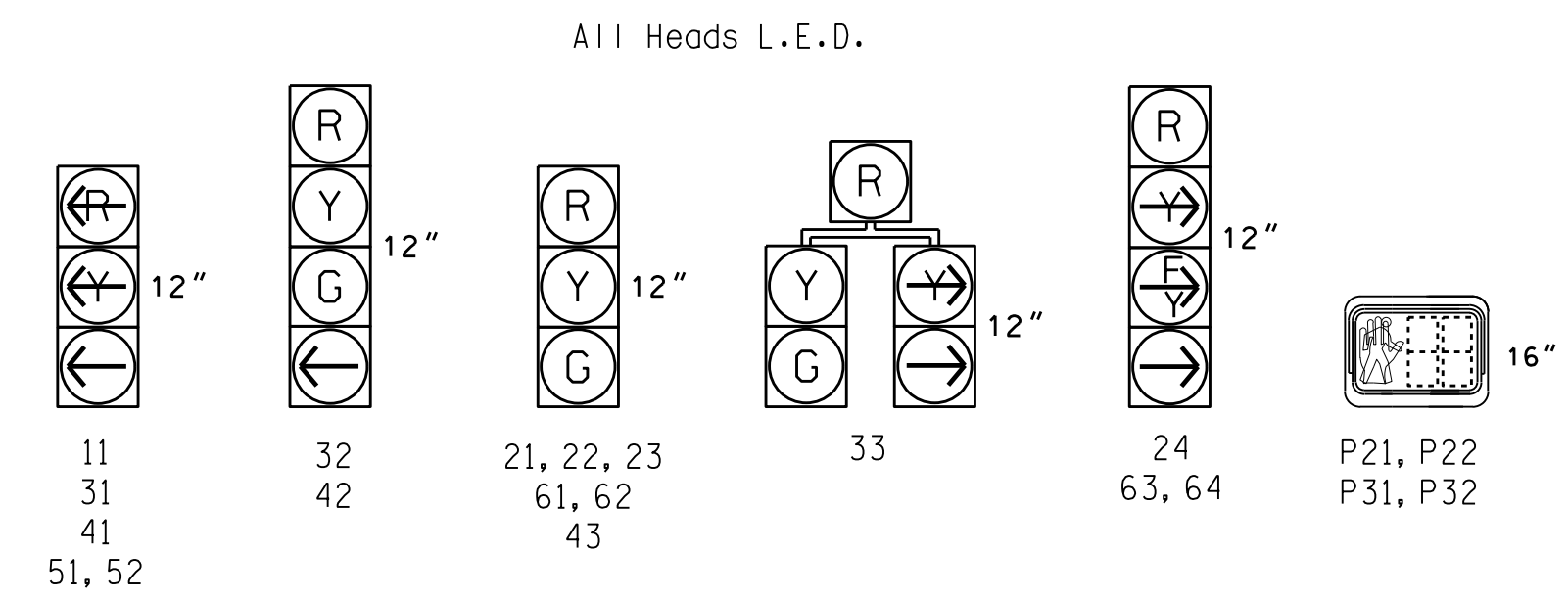


SE-PAC 2070 TIMING CHART

FEATURE	PHASE					
	1	2	3	4	5	6
Min Green *	7	12	7	7	7	12
Passage Gap *	2.0	6.0	2.0	2.0	2.0	6.0
Maximum Green *	15	75	15	30	25	75
Yellow Change	3.0	4.6	3.6	3.7	3.0	4.6
Red Clear	3.3	1.6	3.0	2.8	3.1	1.7
Advance Walk *	-	4	4	-	-	-
Walk *	-	7	7	-	-	-
Pedestrian Clear	-	16	29	-	-	-
Added Initial *	-	1.5	-	-	-	1.5
Maximum Initial *	-	34	-	-	-	34
Time Before Reduction *	-	20	-	-	-	20
Time To Reduce *	-	40	-	-	-	40
Minimum Gap	-	3.0	-	-	-	3.0
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL
Vehicle Call Memory	NON-LOCK	LOCK	NON-LOCK	NON-LOCK	NON-LOCK	LOCK
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.

SIGNAL FACE I.D.



ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE						
	01+5	01+6	02+5	02+6	03	04	F L A S H
11	←	←	←	←	←	←	←
21, 22, 23	R	R	G	G	R	R	Y
24	R	R	F	F	←	←	←
31	←	←	←	←	←	←	←
32	R	R	R	R	G	R	R
33	R	R	R	R	G	R	R
41	←	←	←	←	←	←	←
42	R	R	R	R	G	R	R
43	R	R	R	R	R	G	R
51, 52	←	←	←	←	←	←	←
61, 62	R	G	R	G	R	R	Y
63, 64	R	←	R	←	R	←	←
P21, P22	DW	DW	W	W	DW	DRK	DRK
P31, P32	DW	DW	DW	DW	W	DW	DRK
SIGN A	ON	OFF	ON	OFF	ON	ON	OFF

SIGNS

- PROPOSED (A) "NO TURN ON RED" L.E.D. Blankout Sign
- (B) "U-TURN YIELD TO RIGHT TURN" Sign (R10-16)
- (C) Right Arrow "ONLY" Sign (R3-SR)
- (D) Combined Through and Left Arrow Sign (R3-6L)
- (E) Added Lane Sign (W4-3)
- EXISTING (A) N/A
- (B) N/A
- (C) N/A
- (D) N/A
- (E) N/A

LEGEND

PROPOSED	EXISTING
○→ Traffic Signal Head	●→ Traffic Signal Head
○→ Modified Signal Head	N/A
○→ Pedestrian Signal Head With Push Button & Sign	○→ Pedestrian Signal Head
○→ 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
○→ Right of Way	○→ Right of Way
○→ Directional Arrow	○→ Directional Arrow
○→ Metal Strain Pole	○→ Metal Strain Pole
○→ Type II Signal Pedestal	○→ Type II Signal Pedestal
○→ Curb Ramp	○→ Curb Ramp

Signal Upgrade - Final Design (TMP Phase III & Final)

SR 2000 (Falls of Neuse Rd.) at I-540 WB Ramps and Falls Valley Drive

Division 5 Wake County Raleigh

PLAN DATE: January 2023 REVIEWED BY: J.A. Lohr

PREPARED BY: J.A. Lohr REVIEWED BY: J.A. Lohr

SCALE: 1"=50'

01/03/2023

SIG. INVENTORY NO. 05-2036