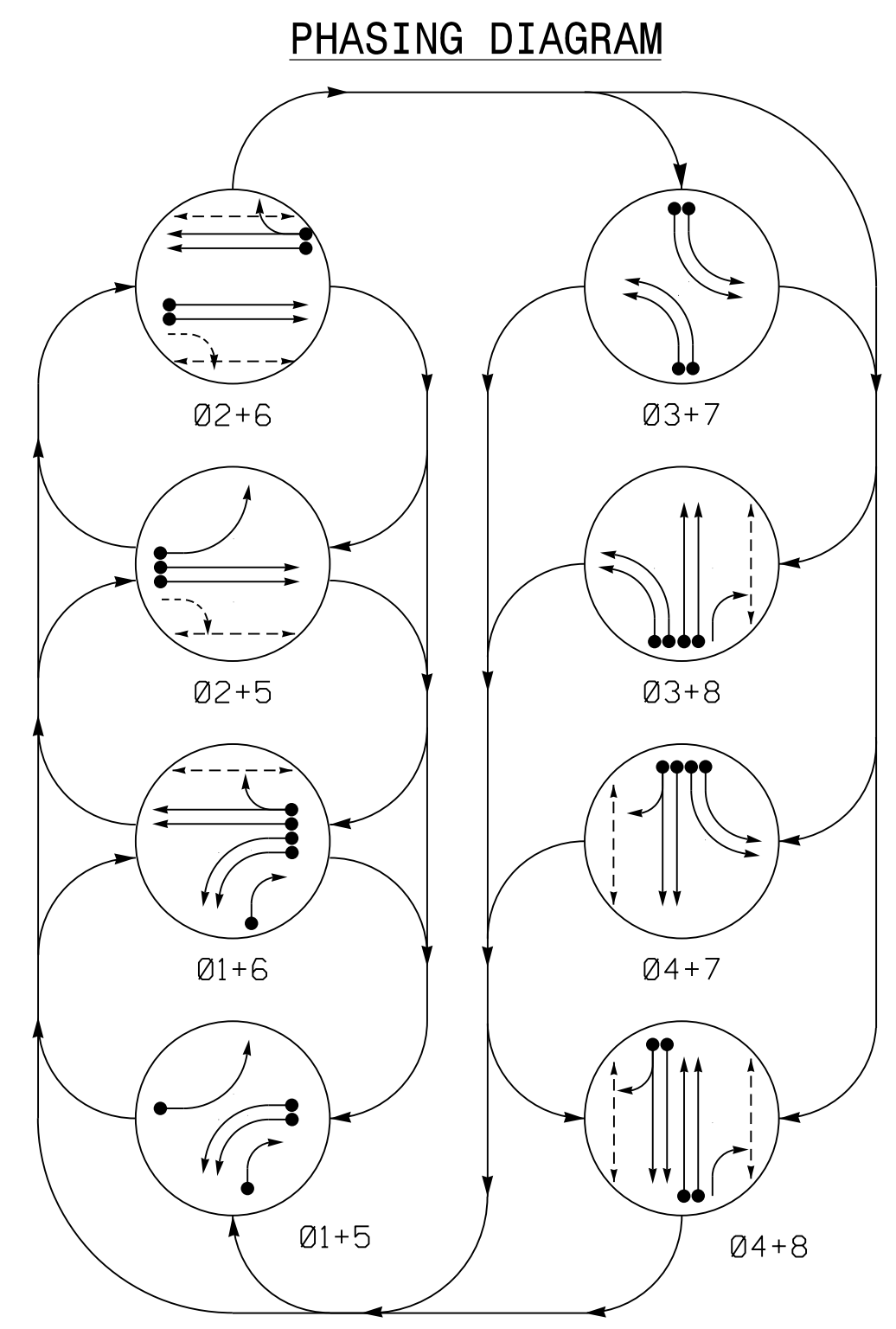


8 Phase Fully Actuated (Burlington-Graham Signal System)



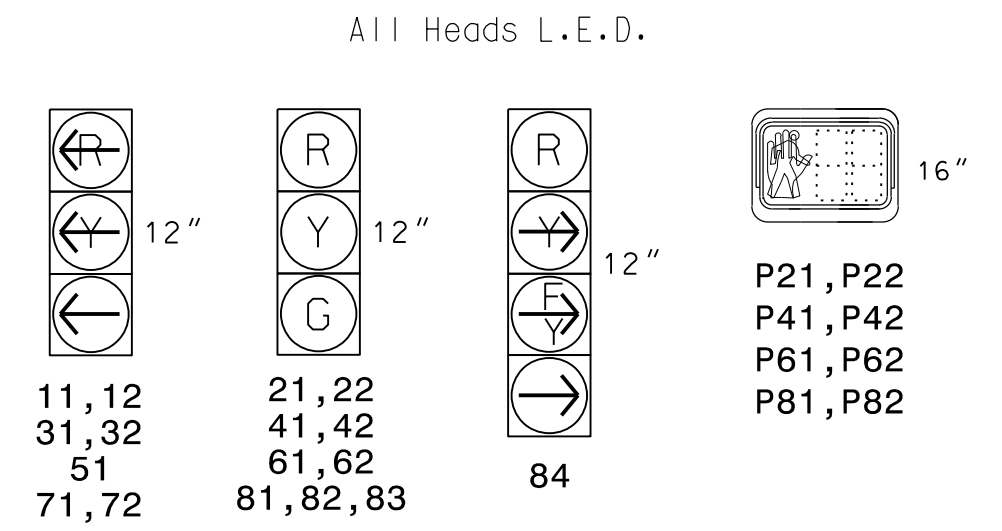
PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

SIGNAL FACE	PHASE							
	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8
11,12	←	←	←	←	←	←	←	←
21,22	R	R	G	G	R	R	R	Y
31,32	←	←	←	←	←	←	←	←
41,42,43	R	R	R	R	R	R	G	G
51	←	←	←	←	←	←	←	←
61,62	R	G	R	G	R	R	R	Y
71,72	←	←	←	←	←	←	←	←
81,82,83	R	R	R	R	R	G	R	R
84	←	←	←	←	←	←	←	←
P21,P22	DW	DW	W	W	DW	DW	DW	DRK
P41,P42	DW	DW	DW	DW	DW	DW	W	DRK
P61,P62	DW	W	DW	W	DW	DW	DW	DRK
P81,P82	DW	DW	DW	DW	DW	W	DW	DRK

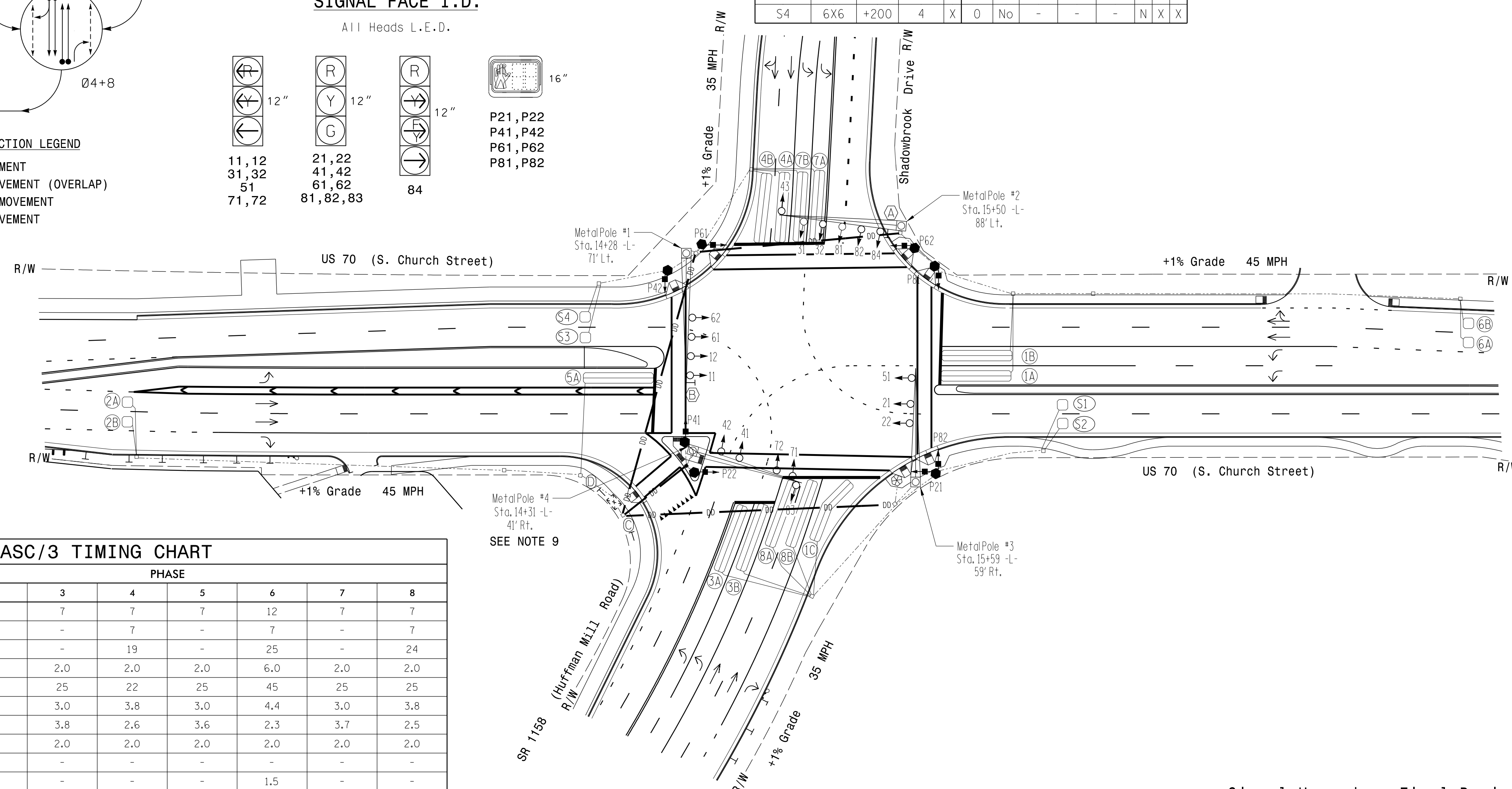
SIGNAL FACE I.D.



ASC/3 DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING							
					PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	SYSTEM LOOP	NEW CARD
1A	6X40	0	2-4-2	X	1	Yes	-	-	-	N	-	X
1B	6X40	0	2-4-2	X	1	Yes	-	-	-	N	-	X
1C	6X40	0	2-4-2	X	1	Yes	-	15	-	N	-	X
2A	6X6	300	4	X	2	Yes	-	-	-	X	N	-
2B	6X6	300	4	X	2	Yes	-	-	-	X	N	-
3A	6X40	0	2-4-2	X	3	Yes	-	3	-	N	-	X
3B	6X40	0	2-4-2	X	3	Yes	-	-	-	N	-	X
4A	6X40	0	2-4-2	X	4	Yes	-	-	-	N	-	X
4B	6X40	0	2-4-2	X	4	Yes	-	10	-	N	-	X
5A	6X40	0	2-4-2	X	5	Yes	-	-	-	N	-	X
6A	6X6	300	4	X	6	Yes	-	-	-	X	N	-
6B	6X6	300	4	X	6	Yes	-	-	-	X	N	-
7A	6X40	0	2-4-2	X	7	Yes	-	3	-	N	-	X
7B	6X40	0	2-4-2	X	7	Yes	-	-	-	N	-	X
8A	6X40	0	2-4-2	X	8	Yes	-	-	-	N	-	X
8B	6X40	0	2-4-2	X	8	Yes	-	-	-	N	-	X
S1	6X6	+230	4	X	0	No	-	-	-	N	X	X
S2	6X6	+230	4	X	0	No	-	-	-	N	X	X
S3	6X6	+200	4	X	0	No	-	-	-	N	X	X
S4	6X6	+200	4	X	0	No	-	-	-	N	X	X

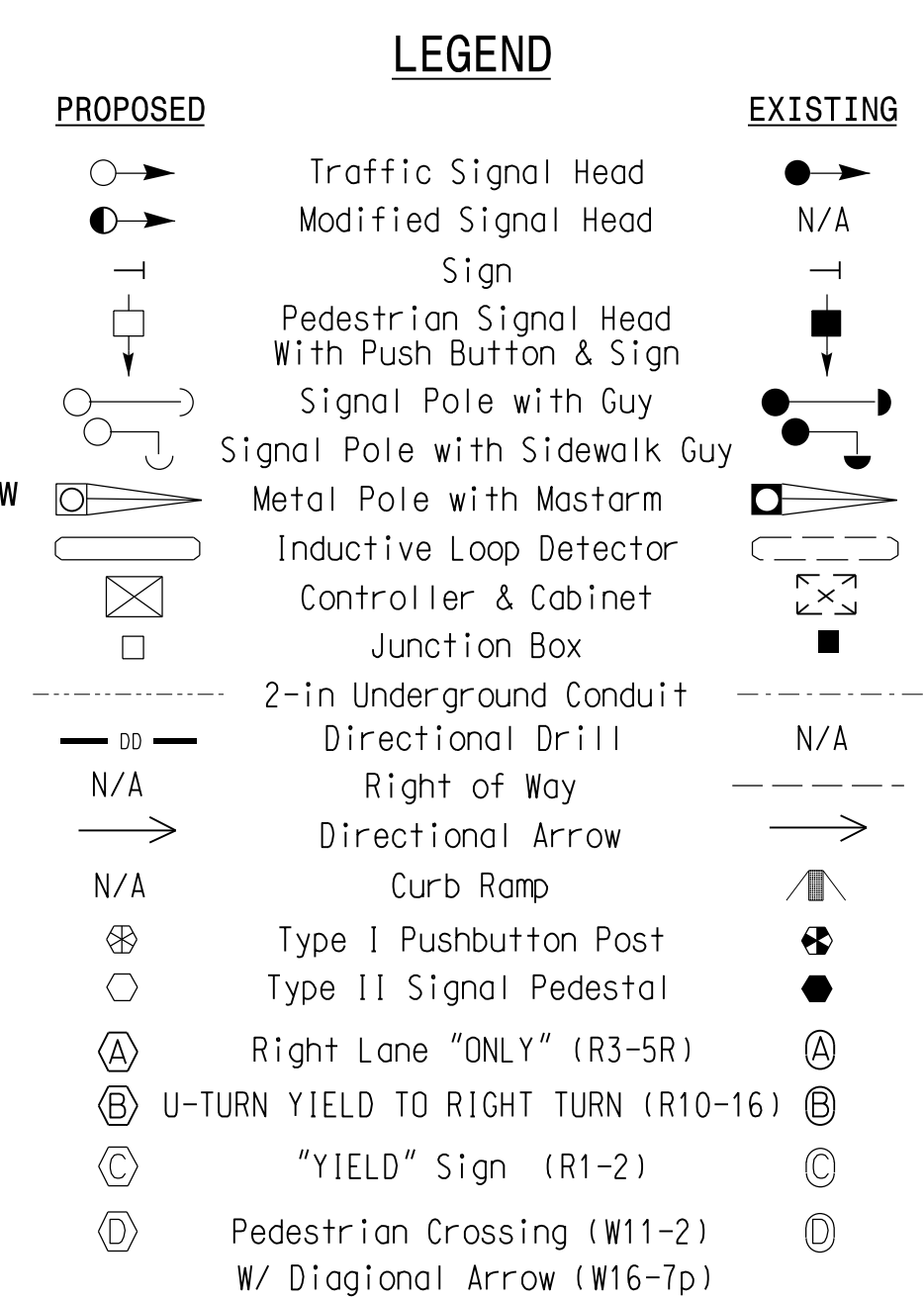
- NOTES**
- Refer to "Roadway Standard Drawings NCDOT" dated January 2024, "Standard Specifications for Roads and Structures" dated January 2024.
 - Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
 - Phase 1 and/or phase 5 may be lagged.
 - Phase 3 and/or phase 7 may be lagged.
 - Set all detector units to presence mode.
 - Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
 - Program pedestrian heads to countdown the flashing "Don't Walk" time only.
 - Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
 - To minimize obstructions to pedestrians, install top of the Metal Pole #4 foundation to be flush with the top of the island surface.



ASC/3 TIMING CHART

FEATURE	PHASE							
	1	2	3	4	5	6	7	8
Min Green *	7	12	7	7	7	12	7	7
Walk *	-	7	-	7	-	7	-	7
Ped Clear	-	28	-	19	-	25	-	24
Veh. Extension *	2.0	6.0	2.0	2.0	2.0	6.0	2.0	2.0
Max I *	25	45	25	22	25	45	25	25
Yellow	3.0	4.4	3.0	3.8	3.0	4.4	3.0	3.8
Red Clear	3.9	2.4	3.8	2.6	3.6	2.3	3.7	2.5
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Actuations B4 Add *	-	-	-	-	-	-	-	-
Seconds / Actuation *	-	1.5	-	-	-	1.5	-	-
Max Initial *	-	34	-	-	-	34	-	-
Time Before Reduction *	-	15	-	-	-	15	-	-
Time To Reduce *	-	30	-	-	-	30	-	-
Minimum Gap	-	3.0	-	-	-	3.0	-	-
Locking Detector	-	X	-	-	-	X	-	-
Recall Position	-	VEH. RECALL	-	-	-	VEH. RECALL	-	-
Dual Entry	-	-	-	-	-	-	-	-
Simultaneous Gap	X	X	X	X	X	X	X	X

* 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 Upgrade - Final Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared for the Offices of:
US 70 (S. Church Street)
 at
SR 1158 (Huffman Mill Road) / Shadowbrook Drive
 Division 07 Alamance County Burlington

PLAN DATE: March 2024 REVIEWED BY: G.G. Murr, Jr.
 PREPARED BY: B.E. Wynn REVIEWED BY:

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SCALE: 0 40
 1" = 40'

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 14543
 GUYE G. MURR, JR.
 DATE: 07-012