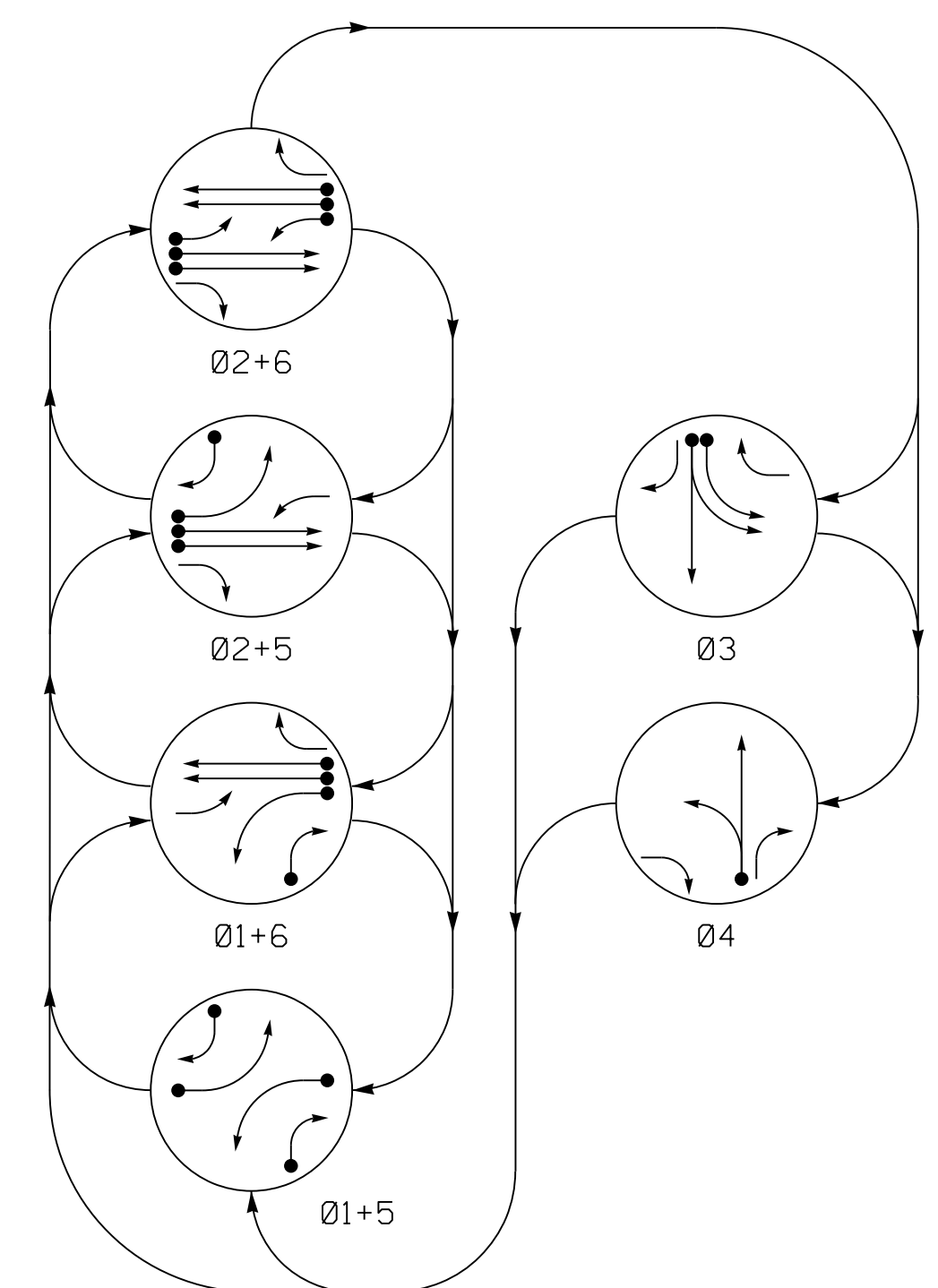


PHASING DIAGRAM



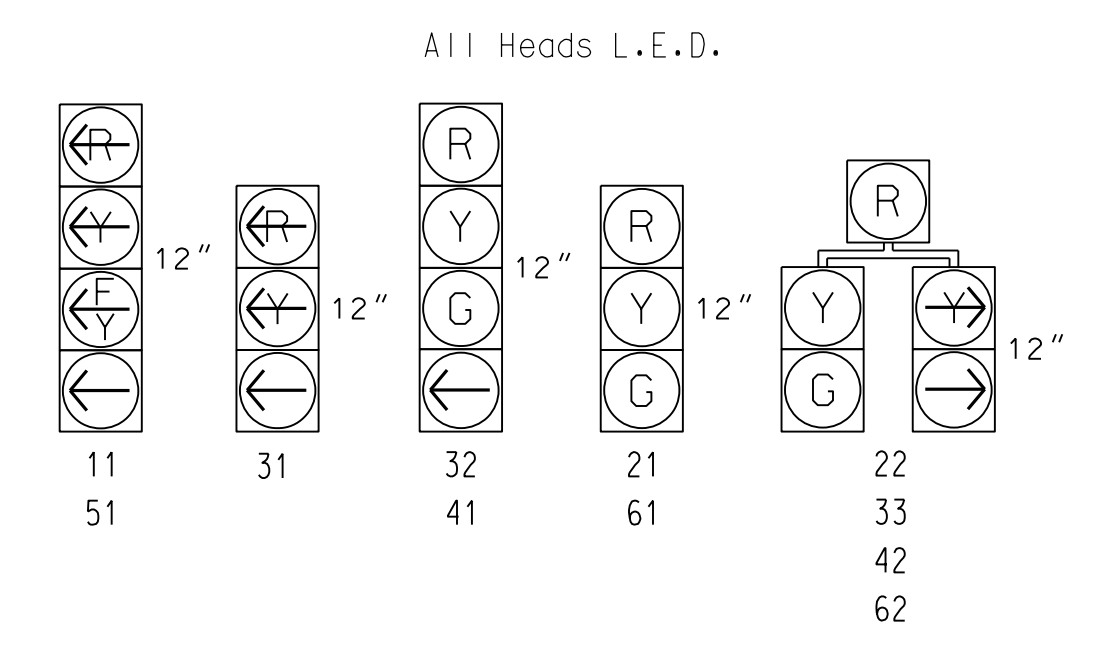
PHASING DIAGRAM DETECTION LEGEND

- ◄ ● DETECTED MOVEMENT
- ◄ ◯ UNDETECTED MOVEMENT (OVERLAP)
- ◄ - - UNSIGNALIZED MOVEMENT
- ◄ - - - PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE						FL
	01+5	01+6	02+5	02+6	03	04	
11	←	←	←	←	←	←	Y
21	R	R	G	G	R	R	Y
22	R	R	G	G	R	R	Y
31	←	←	←	←	←	←	Y
32	R	R	R	R	G	R	R
33	R	R	R	R	G	R	R
41	R	R	R	R	R	G	R
42	R	R	R	R	R	G	R
51	←	←	←	←	←	←	Y
61	R	G	R	G	R	R	Y
62	R	G	R	G	R	R	Y

SIGNAL FACE I.D.



ASC/3 DETECTOR INSTALLATION CHART

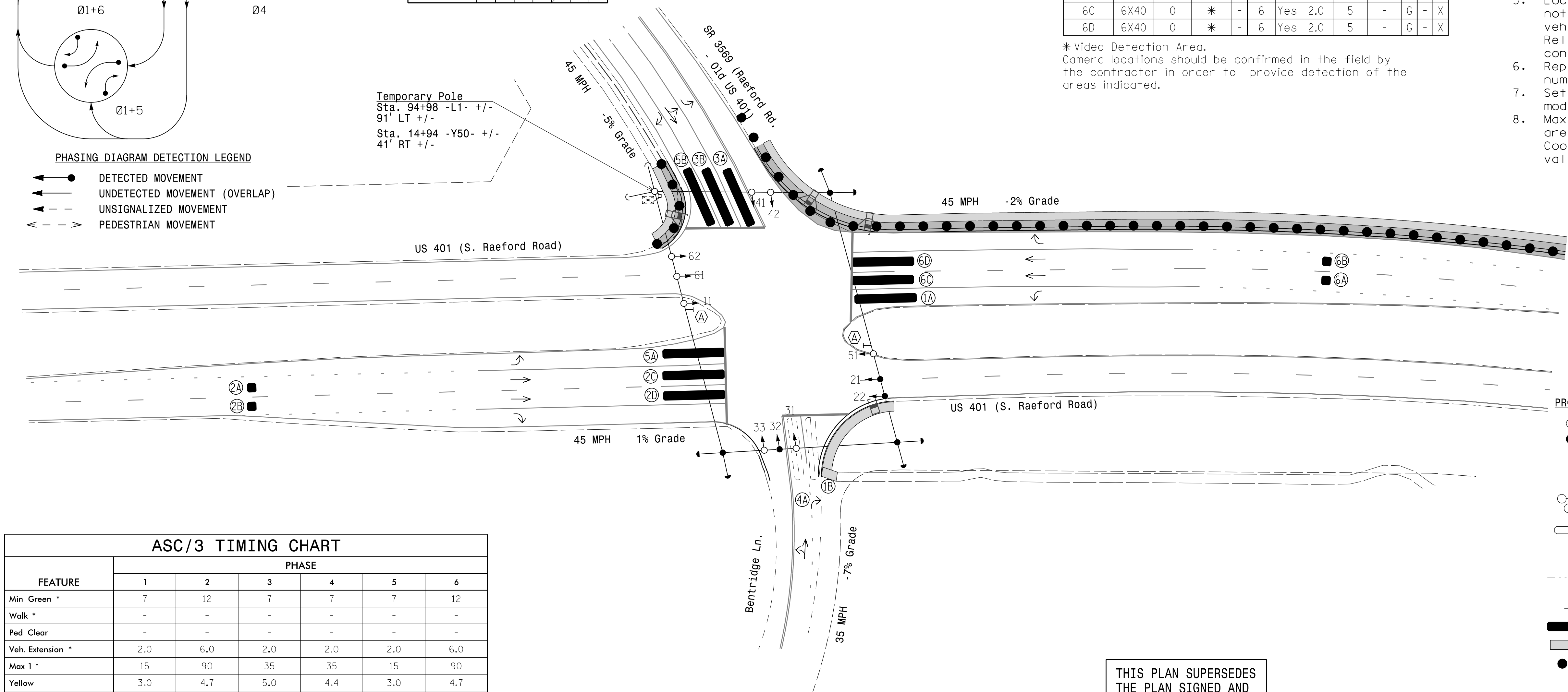
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING							
					PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	SYSTEM LOOP	NEW CARD
1A	6X40	0	*	-	1	Yes	-	15	-	S	-	X
1B	6X40	0	EXIST	-	6	Yes	-	3	-	G	-	X
2A	6X6	300	*	-	2	Yes	-	-	-	N	-	X
2B	6X6	300	*	-	2	Yes	-	-	-	N	-	X
2C	6X40	0	*	-	2	Yes	2.0	5	-	G	-	X
2D	6X40	0	*	-	2	Yes	2.0	5	-	G	-	X
3A	6X40	0	*	-	3	Yes	-	3	-	S	-	X
3B	6X40	0	*	-	3	Yes	-	-	-	S	-	X
4A	6X40	0	EXIST	-	4	Yes	-	3	-	S	-	-
5A	6X40	0	*	-	5	Yes	-	15	-	S	-	X
5B	6X40	0	*	-	5	Yes	-	15	-	S	-	X
6A	6X6	300	*	-	6	Yes	-	-	-	N	-	X
6B	6X6	300	*	-	6	Yes	-	-	-	N	-	X
6C	6X40	0	*	-	6	Yes	2.0	5	-	G	-	X
6D	6X40	0	*	-	6	Yes	2.0	5	-	G	-	X

* Video Detection Area. Camera locations should be confirmed in the field by the contractor in order to provide detection of the areas indicated.

6 Phase Fully Actuated Fayetteville Signal System

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
- 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.
- Locate new cabinet foundation so as not to obstruct sight distance of vehicles turning right on red. Relocate existing cabinet and controller onto new foundation.
- Reposition existing signal head numbered 32.
- Set all detector units to presence mode.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



ASC/3 TIMING CHART

FEATURE	PHASE					
	1	2	3	4	5	6
Min Green *	7	12	7	7	7	12
Walk *	-	-	-	-	-	-
Ped Clear	-	-	-	-	-	-
Veh. Extension *	2.0	6.0	2.0	2.0	2.0	6.0
Max 1 *	15	90	35	35	15	90
Yellow	3.0	4.7	5.0	4.4	3.0	4.7
Red Clear	3.3	1.7	2.0	2.4	3.1	1.6
Red Revert	-	-	-	-	-	-
Actuations B4 Add *	-	-	-	-	-	-
Seconds / Actuation *	-	-	-	-	-	-
Max Initial *	-	-	-	-	-	-
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

* 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	⊥ 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	--- Right of Way
→ Directional Arrow	→ Directional Arrow
▬ Video Detection Area	N/A
▬ Construction Zone	N/A
● Drums	N/A
⊙ "U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	⊙ "U-TURN YIELD TO RIGHT TURN" Sign (R10-16)

THIS PLAN SUPERSEDES THE PLAN SIGNED AND SEALED ON 06/05/2019

Signal Upgrade Temporary Design 1 - TMP Phase II

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Prepared for the Offices of:
 Transportation Mobility and Safety Division
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 STATE OF NORTH CAROLINA
 Signal Design Section
 750 N. Greenfield Pkwy, Garner, NC 27526
 SCALE: 1" = 40'

US 401 (South Raeford Rd.) at SR 3569 (Raeford Rd-Old US 401) Bentrige Ln.
 Division 6 Cumberland County Fayetteville
 PLAN DATE: July 2021 REVIEWED BY: E D Harris
 PREPARED BY: R M Muncey REVIEWED BY: B L Watson

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Professional Engineer Seal 29449
 Betsy L. Watson
 DATE: 7/2021
 SIG. INVENTORY NO. 06-084511

7/2/2021 11:00 AM
 U:\Projects\4405A\Sigs\4405A_Sig.dgn
 User: jhambert