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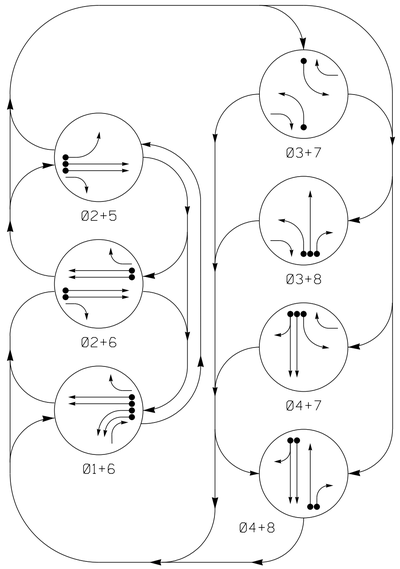
PROJECT REFERENCE NO.	SHEET NO.
U-5798A	Sig. 2.0

7 Phase
Fully Actuated
Fayetteville Signal System

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

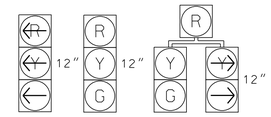
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE 01+6	02+6	02+5	03+7	03+8	04+7	04+8	FLASH
11,12	←	R	R	R	R	R	R	R
21	R	G	G	R	R	R	R	Y
22	R	G	G	R/→	R/→	R	R	Y
31	R	R	R	←	←	R	R	R
41,42,43	R	R	R	R	R	G	G	R
51	R	R	←	R	R	R	R	R
61	G	G	R	R	R	R	R	Y
62	G	G	R	R/→	R	R/→	R	Y
71	R	R	R	←	R	←	R	R
81,83	R	R	R	R	G	R	G	R
82	R/→	R	R	R	G	R	G	R

SIGNAL FACE I.D.

All Heads L.E.D.



11,12	21	22
31	41, 42, 43	62
51	61	82
71	81, 83	

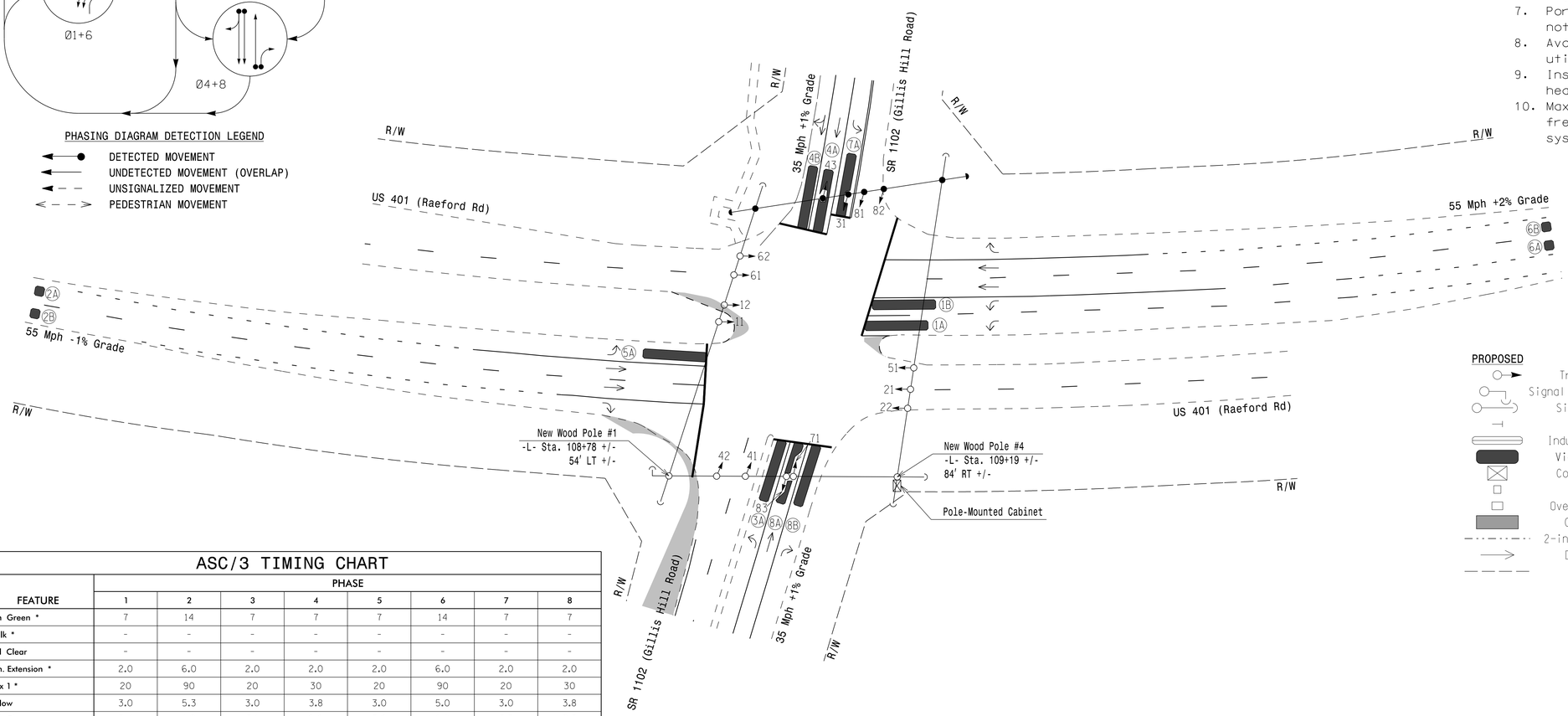
ASC/3 DETECTOR INSTALLATION CHART

DETECTOR					PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTEND TIME	DELAY TIME	USED ADDED INITIAL	TYPE	SYSTEM LOOP	NEW CARD
1A	6X40	0	✳	✳	1	YES	-	-	-	N	-	✳
1B	6X40	0	✳	✳	1	YES	-	-	-	N	-	✳
2A	6X6	420	✳	✳	2	YES	-	-	X	N	-	✳
2B	6X6	420	✳	✳	2	YES	-	-	X	N	-	✳
3A	6X40	0	✳	✳	3	YES	-	-	-	N	-	✳
4A	6X40	0	✳	✳	4	YES	-	-	-	N	-	✳
4B	6X40	0	✳	✳	4	YES	-	10	-	N	-	✳
5A	6X40	0	✳	✳	5	YES	-	-	-	N	-	✳
6A	6X6	420	✳	✳	6	YES	-	-	X	N	-	✳
6B	6X6	420	✳	✳	6	YES	-	-	X	N	-	✳
7A	6X40	0	✳	✳	7	YES	-	3	-	N	-	✳
8A	6X40	0	✳	✳	8	YES	-	-	-	N	-	✳
8B	6X40	0	✳	✳	8	YES	-	15	-	N	-	✳

✳ Video Detection Zone

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 3 and/or phase 7 may be lagged.
4. The order of phase 1 and phase 5 may be reversed, but phase 1 and phase 5 shall not operate concurrently.
5. Set all detector units to presence mode.
6. Relocate eastbound approach stopbar as shown on U-5798A TMP Phase 1 Pavement Marking Plans.
7. Portions of detection zones 4A, 7A, and 8A not shown for clarity.
8. Avoid impacts to proposed and existing utilies at New Wood Pole #4.
9. Install new signal cable for existing signal heads 31, 43, 81, and 82.
10. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Signal Pole with Sidewalk Guy	
	Signal Pole with Guy	
	Sign	
	Inductive Loop Detector	
	Video Detection Zone	
	Controller & Cabinet	
	Junction Box	
	Oversized Junction Box	
	Construction Zone	
	2-in Underground Conduit	
	Directional Arrow	
	Right of Way	

ASC/3 TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6	7	8
Min Green *	7	14	7	7	7	14	7	7
Walk *	-	-	-	-	-	-	-	-
Ped Clear	-	-	-	-	-	-	-	-
Veh. Extension *	2.0	6.0	2.0	2.0	2.0	6.0	2.0	2.0
Max 1 *	20	90	20	30	20	90	20	30
Yellow	3.0	5.3	3.0	3.8	3.0	5.0	3.0	3.8
Red Clear	3.4	1.2	3.1	2.6	3.6	1.0	3.3	2.7
Actuations B4 Add *	-	0	-	-	-	0	-	-
Seconds /Actuation *	-	1.8	-	-	-	1.8	-	-
Max Initial *	-	46	-	-	-	46	-	-
Time Before Reduction *	-	15	-	-	-	15	-	-
Time To Reduce *	-	45	-	-	-	45	-	-
Minimum Gap	-	3.4	-	-	-	3.4	-	-
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.

Temporary Signal 1 - TCP Phase II

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

RS&H
NC FIRM LICENSE No: F-0493
8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
(919) 926-4100

Prepared for the Offices of:
Transportation Mobility and Safety Division
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

SCALE 0 40
1"=40'

US 401 (S Raeford Road)
at
SR 1102 (Gillis Hill Road)
Division 6 Cumberland County Fayetteville

PLAN DATE: January 2022	REVIEWED BY: S.G. Haynie		
PREPARED BY: S. N. Matthews	REVIEWED BY:		
REVISIONS		INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 046989 ENGINEER S. NICK MATTHEWS

DocuSigned by:
1/5/2022
SIGNATURE DATE

SIG. INVENTORY NO. 06-0849T1

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