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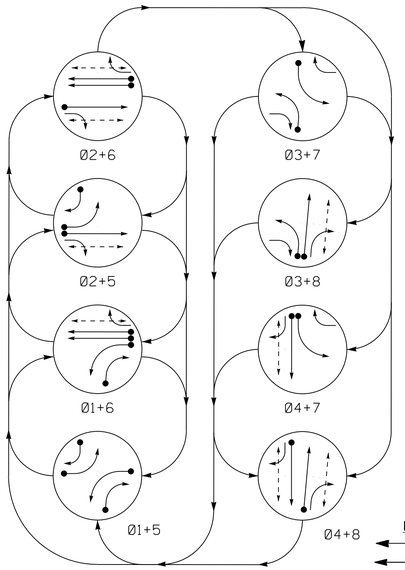
PROJECT REFERENCE NO.	SHEET NO.
U-4405	SIG-11.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

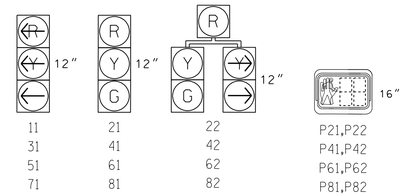
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø3+7	Ø3+8	Ø4+7	Ø4+8	FLASH
11	←	←	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
21	R	R	G	G	R	R	R	R	Y
22	R	R	G	G	R↘	R↘	R	R	Y
31	~~R~~	~~R~~	~~R~~	~~R~~	←	←	~~R~~	~~R~~	~~R~~
41	R	R	R	R	R	R	G	G	R
42	R↘	R	R↘	R	R	R	G	G	R
51	←	~~R~~	←	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
61	R	G	R	G	R	R	R	R	Y
62	R	G	R	G	R↘	R	R↘	R	Y
71	~~R~~	~~R~~	~~R~~	~~R~~	←	~~R~~	←	~~R~~	~~R~~
81	R	R	R	R	R	G	R	G	R
82	R↘	R↘	R	R	R	G	R	G	R
P21,P22	DW	DW	W	W	DW	DW	DW	DW	DRK
P41,P42	DW	DW	DW	DW	DW	DW	W	W	DRK
P61,P62	DW	W	DW	W	DW	DW	DW	DW	DRK
P81,P82	DW	DW	DW	DW	DW	W	DW	W	DRK

SIGNAL FACE I.D.

All Heads L.E.D.



ASC/3 DETECTOR INSTALLATION CHART

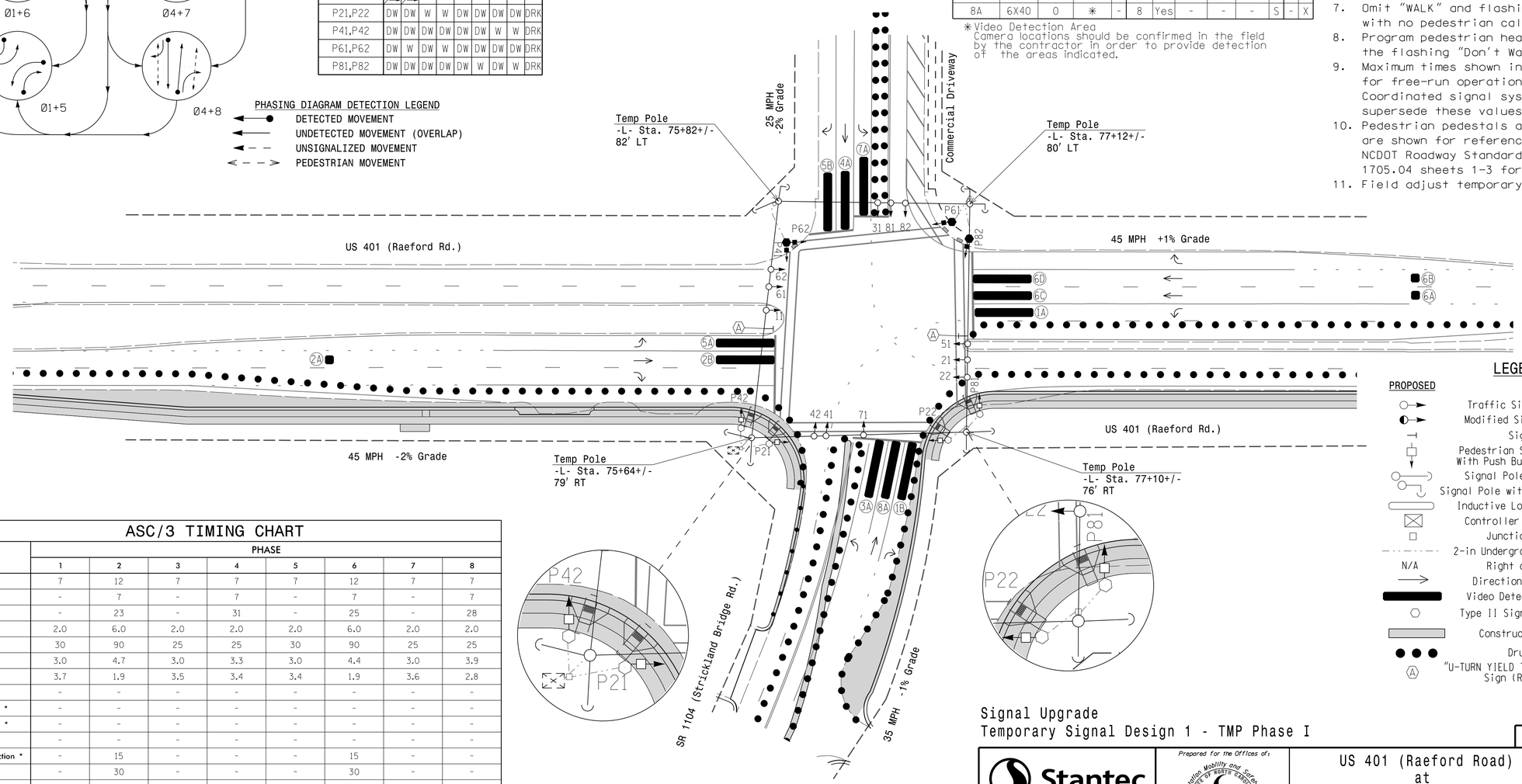
DETECTOR					PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	SYSTEM LOOP	NEW CARD
1A	6X40	0	*	-	1	Yes	-	-	-	S	-	X
1B	6X40	0	*	-	1	Yes	-	15	-	S	-	X
2A	6X6	300	*	-	2	Yes	-	-	-	N	-	X
2B	6X40	0	*	-	2	Yes	2.0	5	-	G	-	X
3A	6X40	0	*	-	3	Yes	-	-	-	S	-	X
4A	6X40	0	*	-	4	Yes	-	-	-	S	-	X
5A	6X40	0	*	-	5	Yes	-	-	-	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
7A	6X40	0	*	-	7	Yes	-	-	-	S	-	X
8A	6X40	0	*	-	8	Yes	-	-	-	S	-	X

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

8 Phase Fully Actuated Fayetteville 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. Phase 3 and/or phase 7 may be lagged.
5. Set all detector units to presence mode.
6. 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.
7. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
8. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
10. Pedestrian pedestals are conceptual and are shown for reference only. See 2018 NCDOT Roadway Standard Drawings 1705.04 sheets 1-3 for push button details.
11. Field adjust temporary poles as needed.



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
	Video Detection Area	N/A
	Type II Signal Pedestal	
	Construction Zone	N/A
	Drums	N/A
	"U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	

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	-	23	-	31	-	25	-	28
Veh. Extension *	2.0	6.0	2.0	2.0	2.0	6.0	2.0	2.0
Max 1 *	30	90	25	25	30	90	25	25
Yellow	3.0	4.7	3.0	3.3	3.0	4.4	3.0	3.9
Red Clear	3.7	1.9	3.5	3.4	3.4	1.9	3.6	2.8
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	-	-	-	-	-	-	-	-
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
Temporary Signal Design 1 - TMP Phase I

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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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 (Raeford Road)
at
SR 1104 (Strickland Bridge Road)

Division 6 Cumberland County Fayetteville

PLAN DATE:	March 2018	REVIEWED BY:	E D Harris
PREPARED BY:	A D Smith	REVIEWED BY:	B L Watson

REVISIONS	INIT.	DATE

NORTH CAROLINA PROFESSIONAL SEAL 29449 ENGINEER BETSY L. WATSON

DocuSigned by: Betsy L. Watson 3/29/2018
SIGNATURE DATE

SIG. INVENTORY NO. 06-0596TI

3/29/2018
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