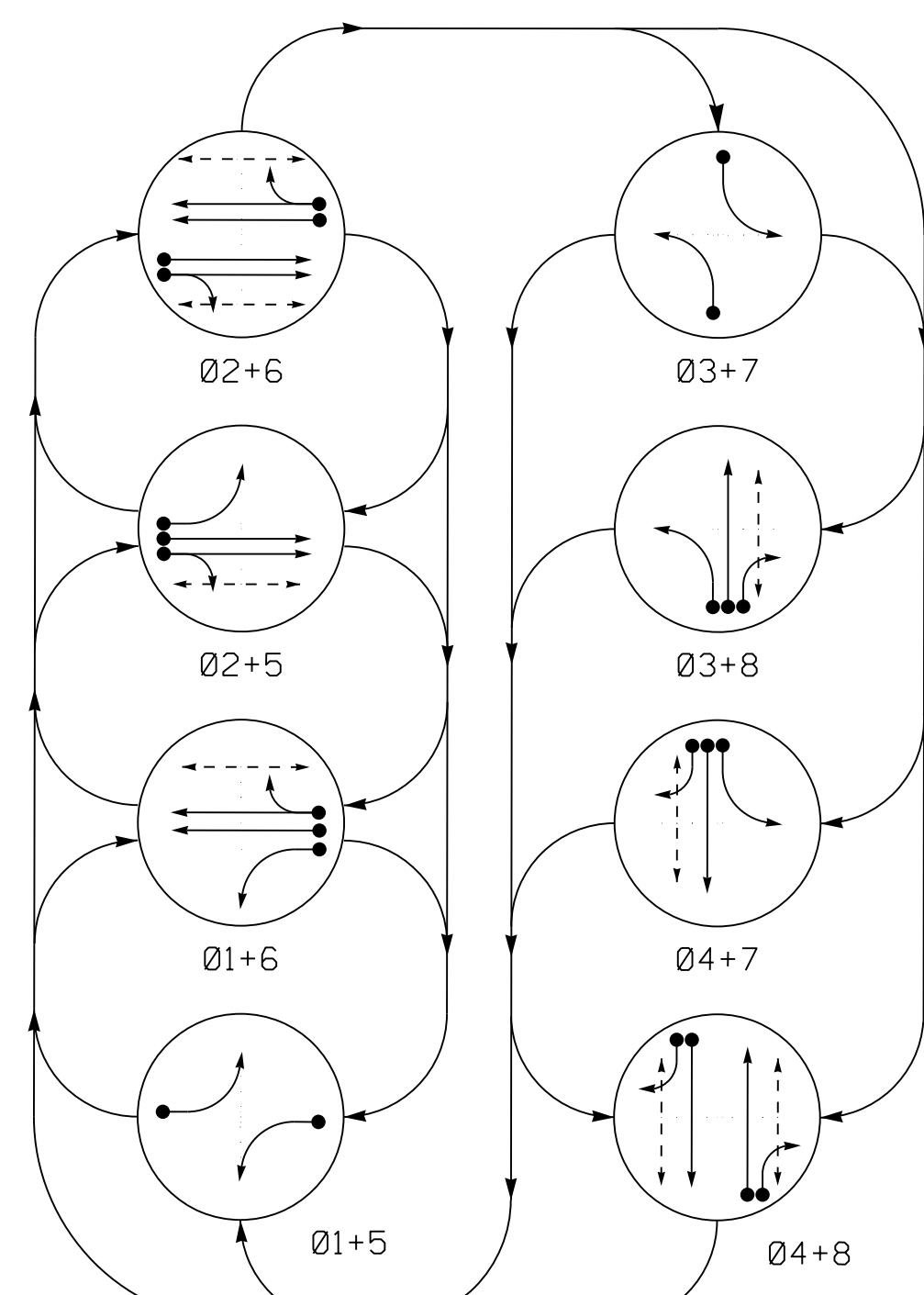


8 Phase Fully Actuated Fayetteville Signal System

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

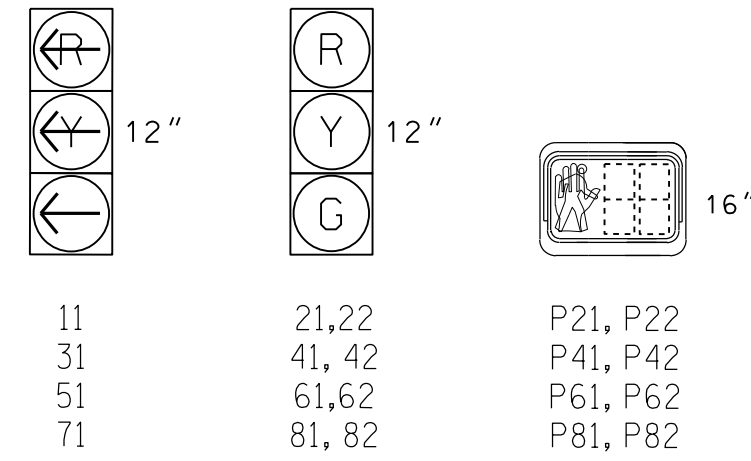
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- ⚡ UNSIGNALIZED MOVEMENT
- ⚡ PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE							
	Ø 1 + 5	Ø 1 + 6	Ø 2 + 5	Ø 2 + 6	Ø 3 + 7	Ø 3 + 8	Ø 4 + 7	Ø 4 + 8
11	←	←	←	←	←	←	←	←
21,22	R	R	G	G	R	R	R	Y
31	←	←	←	←	←	←	←	←
41, 42	R	R	R	R	R	G	G	R
51	←	←	←	←	←	←	←	←
61,62	R	G	R	G	R	R	R	Y
71	←	←	←	←	←	←	←	←
81, 82	R	R	R	R	R	G	G	R
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.

All Heads L.E.D.



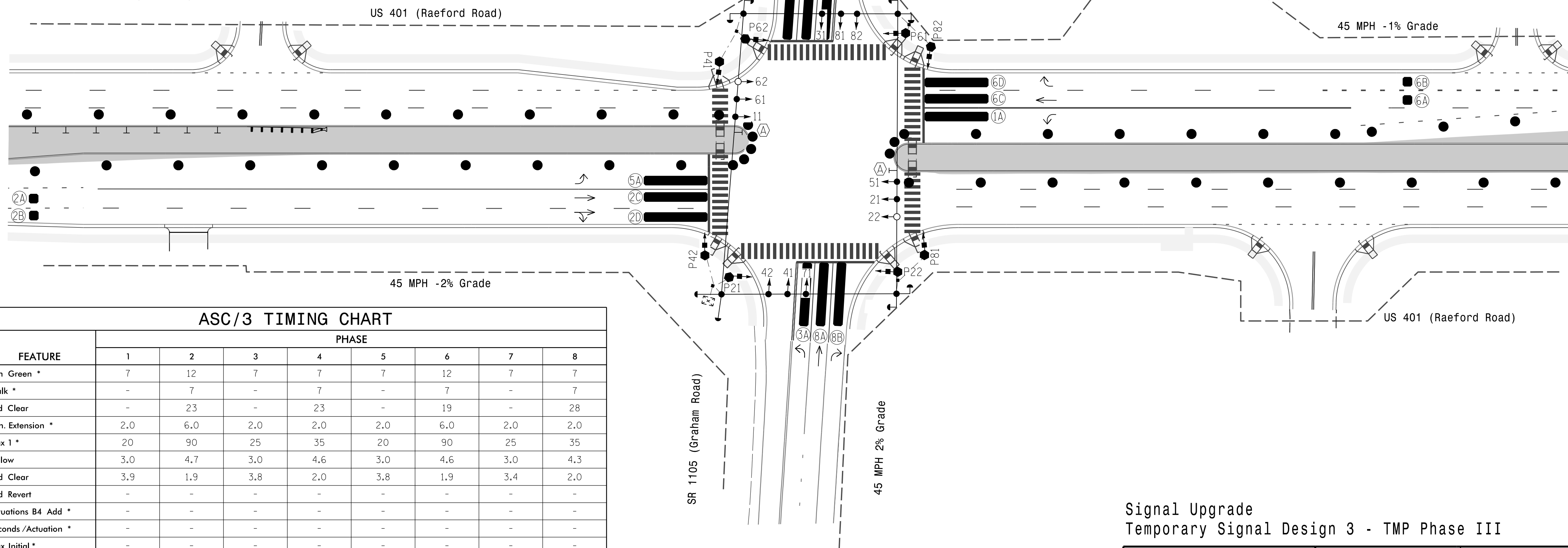
ASC/3 DETECTOR INSTALLATION CHART

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	-	-	-	S	-	-
2A	6X6	300	*	-	2	Yes	-	-	-	N	-	-
2B	6X6	300	*	-	2	Yes	-	-	-	N	-	-
2C	6X40	0	*	-	2	Yes	2.0	5	-	G	-	-
2D	6X40	0	*	-	2	Yes	2.0	5	-	G	-	-
3A	6X40	0	*	-	3	Yes	-	3	-	S	-	-
4A	6X40	0	*	-	4	Yes	-	-	-	S	-	-
4B	6X40	0	*	-	4	Yes	-	15	-	S	-	-
5A	6X40	0	*	-	5	Yes	-	-	-	S	-	-
6A	6X6	300	*	-	6	Yes	-	-	-	N	-	-
6B	6X6	300	*	-	6	Yes	-	-	-	N	-	-
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	-	3	-	S	-	-
8A	6X40	0	*	-	8	Yes	-	-	-	S	-	-
8B	6X40	0	*	-	8	Yes	-	15	-	S	-	-

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

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.
- Phase 3 and/or phase 7 may be lagged.
- Reposition existing signal heads numbered 11, 21, 51 & 61.
- 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.
- Pavement markings are existing.
- 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	7	8
Min Green *	7	12	7	7	7	12	7	7
Walk *	-	7	-	7	-	7	-	7
Ped Clear	-	23	-	23	-	19	-	28
Veh. Extension *	2.0	6.0	2.0	2.0	2.0	6.0	2.0	2.0
Max I *	20	90	25	35	20	90	25	35
Yellow	3.0	4.7	3.0	4.6	3.0	4.6	3.0	4.3
Red Clear	3.9	1.9	3.8	2.0	3.8	1.9	3.4	2.0
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.

LEGEND

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

Signal Upgrade Temporary Signal Design 3 - TMP Phase III

<p>Stantec Consulting Services Inc. 801 Jones Franklin Road-Suite 300 Raleigh, NC 27606 Tel. (919) 851-6866 Fax. (919) 851-7024 www.stantec.com License No. F-0672</p>		<p>US 401 (Raeford Road) at SR 1409 (71st School Road) / SR 1105 (Graham Road)</p>	
		<p>Division 6 Cumberland County Fayetteville</p> <p>PLAN DATE: March 2018 REVIEWED BY: E D Harris</p> <p>PREPARED BY: A D Smith REVIEWED BY: B L Watson</p>	<p>3/29/2018</p>

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED