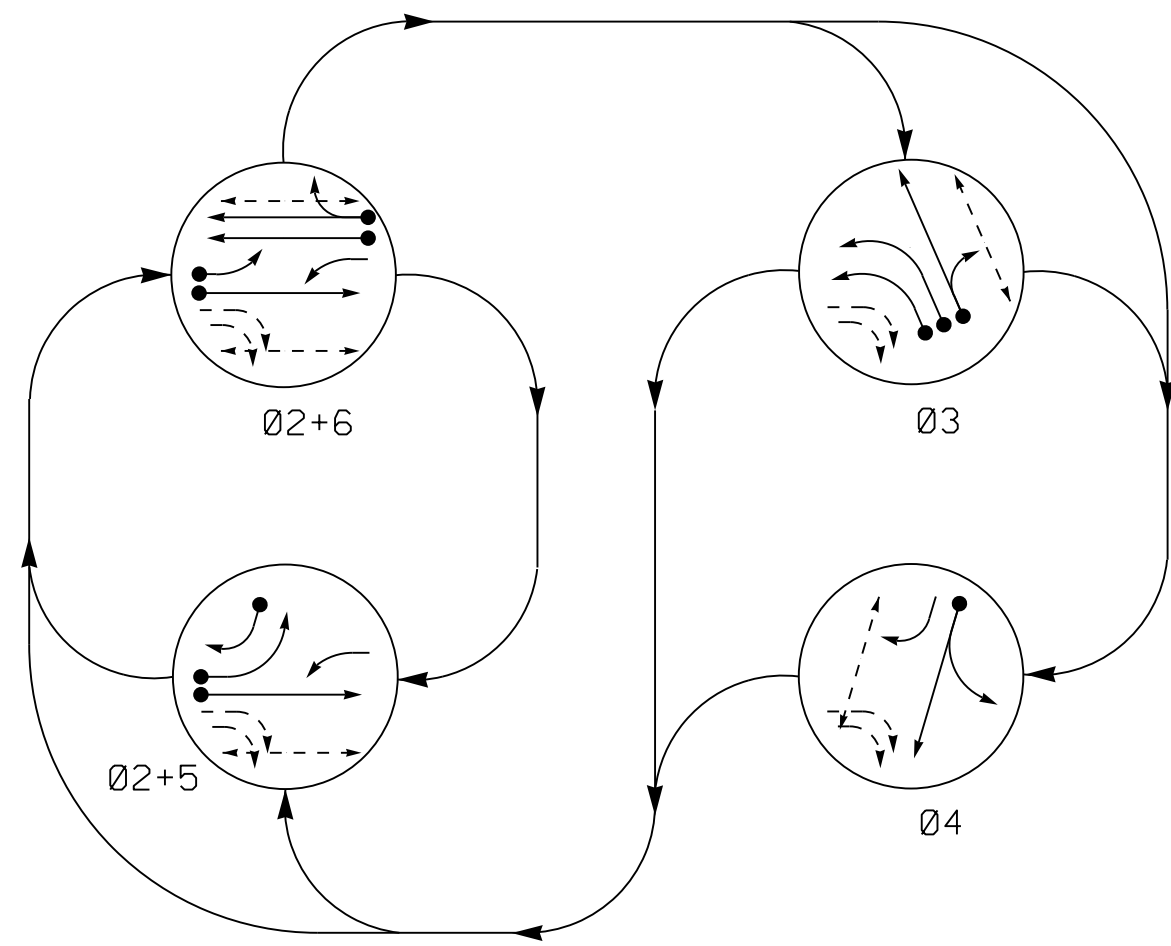
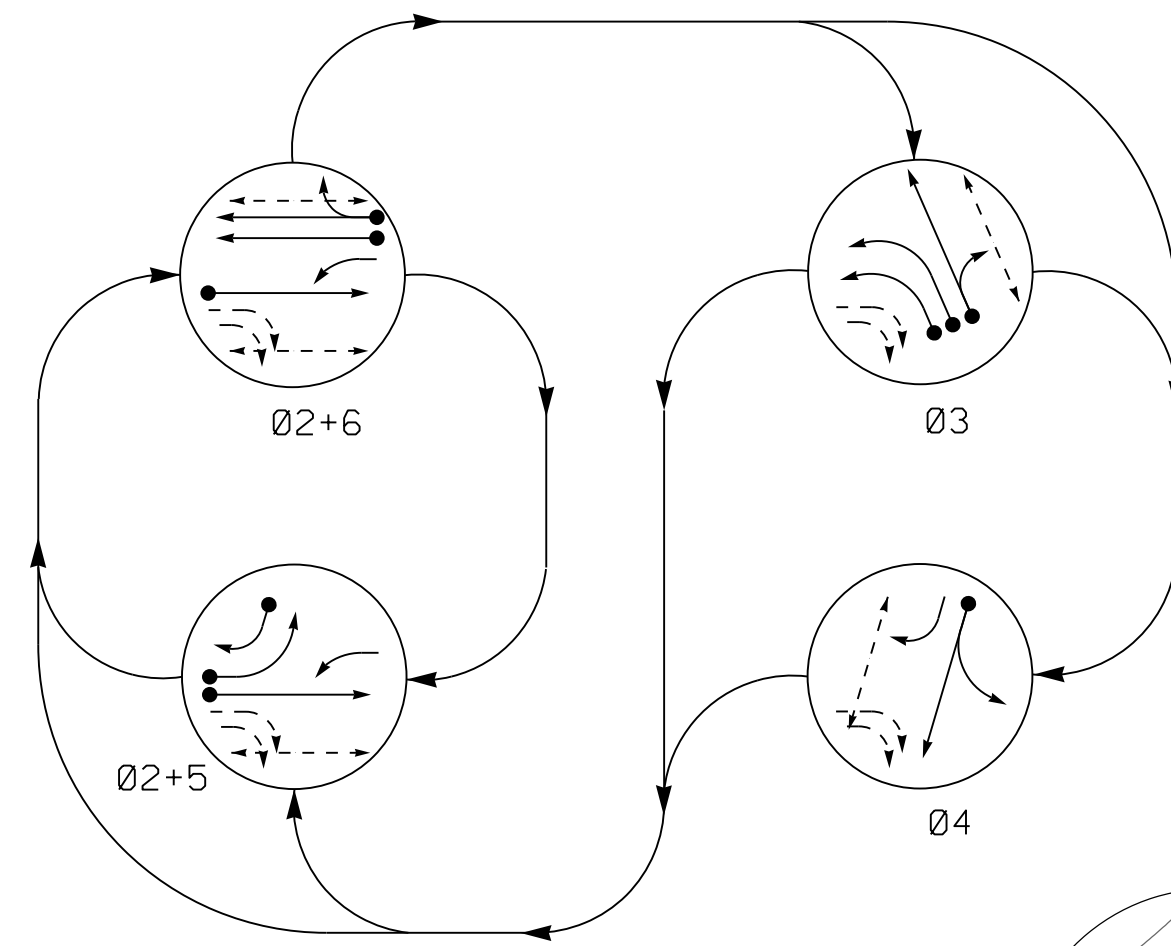


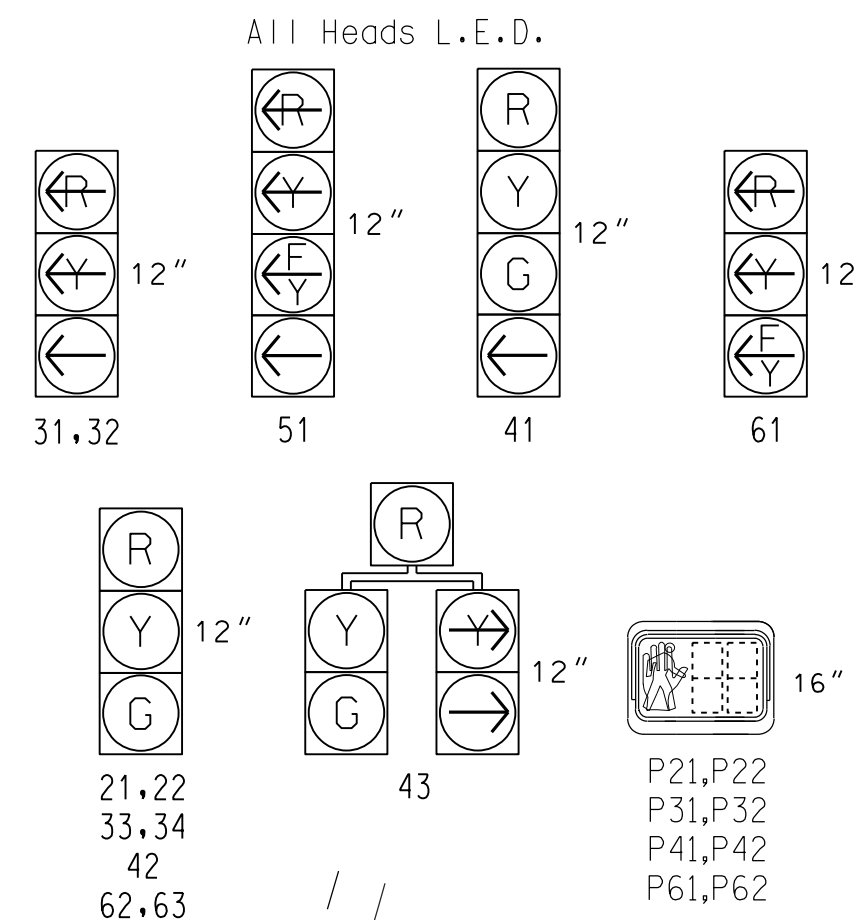
DEFAULT PHASING DIAGRAM



ALTERNATE PHASING DIAGRAM



SIGNAL FACE I.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	LOOP CARD
2A	6X6	70	3	X	2	Yes	-	-	-	S	- X
3A	6X40	0	2-4-2	X	3	Yes	-	3	-	S	- X
3B	6X40	0	2-4-2	X	3	Yes	-	-	-	S	- X
3C	6X40	0	2-4-2	X	3	Yes	-	10	-	S	- X
4A	6X40	0	2-4-2	X	4	Yes	-	3	-	S	- X
5A	6X40	0	2-4-2	X	5	Yes	-	15★	-	S	- X
5B	6X40	0	2-4-2	X	5	Yes	-	15	-	S	- X
6A	6X40	0	2-4-2	X	6	Yes	-	-	-	S	- X
6B	6X6	70	3	X	6	Yes	-	-	-	S	- X
6C	6X6	70	3	X	6	Yes	-	-	-	S	- X

Disable Phases call during Alternate Phasing Operation.
 ★ Disable delay during Alternate Phasing Operation.

4 Phase Fully Actuated Fayetteville Signal System

NOTES

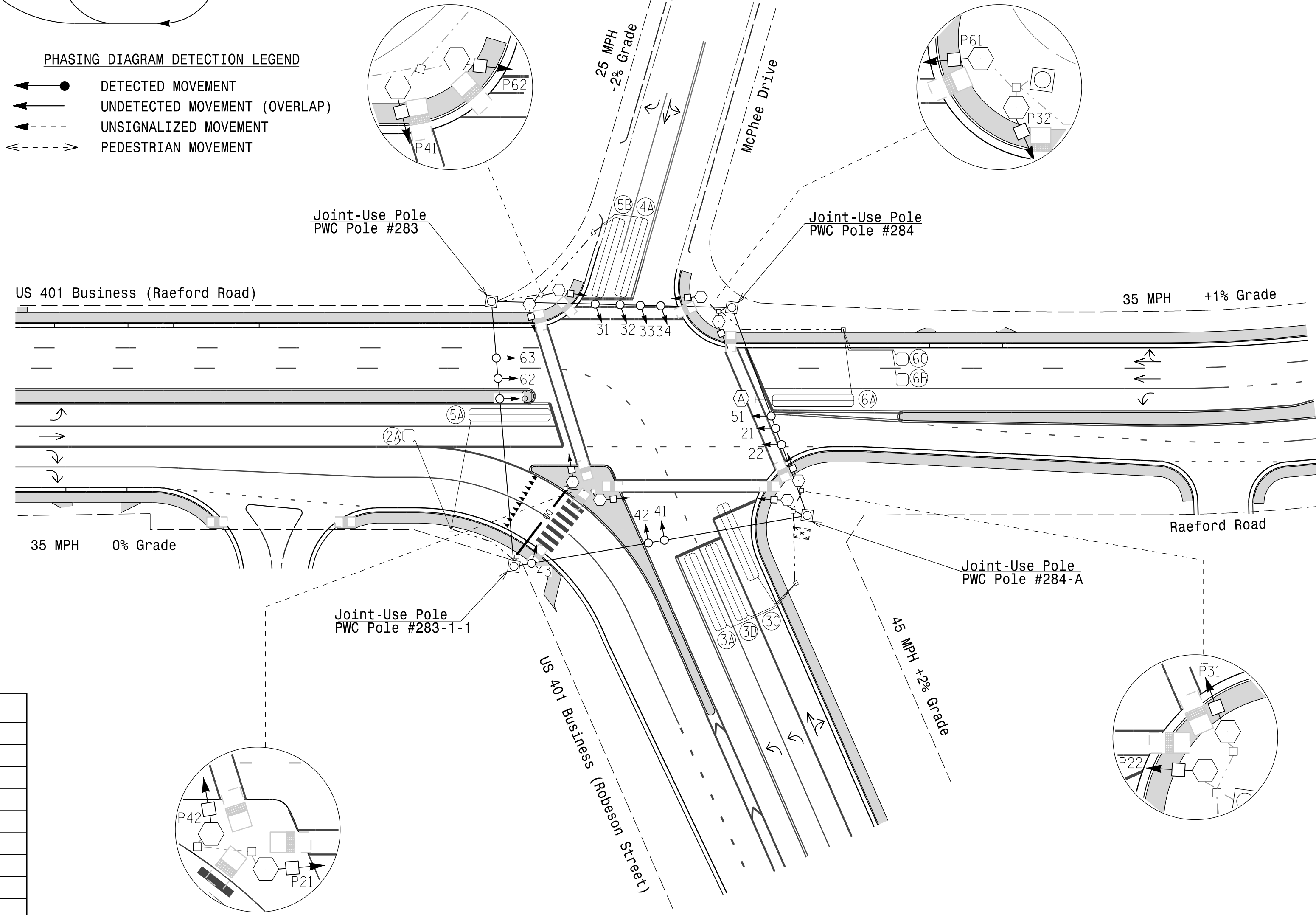
1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 5 may be lagged.
4. The order of phase 3 and phase 4 may be reversed.
5. Set all detector units to presence mode.
6. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
7. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
8. The Division (City) Traffic Engineer will determine the hours of use for each phasing plan.
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 shown for reference only. See 2018 NCDOT Roadway Standard Drawings 1705.04 Sheets 1-3 for push button location details.

SIGNAL FACE	PHASE				
	02+5	02+6	03	04	F
21,22	G	G	R	R	Y
31,32	←R	←R	←R	←R	←R
33,34	R	R	G	R	R
41	R	R	R	G	R
42	R	R	R	G	R
43	←R	←R	R	G	R
51	←E	←E	←R	←R	←Y
61	←E	←E	←R	←R	←Y
62,63	R	G	R	R	Y
P21,P22	W	W	DW	DW	DRK
P31,P32	DW	DW	W	DW	DRK
P41,P42	DW	DW	DW	W	DRK
P61,P62	DW	W	DW	DW	DRK

SIGNAL FACE	PHASE				
	02+5	02+6	03	04	F
21,22	G	G	R	R	Y
31,32	←R	←R	←R	←R	←R
33,34	R	R	G	R	R
41	R	R	R	G	R
42	R	R	R	G	R
43	←R	←R	R	G	R
51	←R	←R	←R	←R	←Y
61	←E	←E	←R	←R	←Y
62,63	R	G	R	R	Y
P21,P22	W	W	DW	DW	DRK
P31,P32	DW	DW	W	DW	DRK
P41,P42	DW	DW	DW	W	DRK
P61,P62	DW	W	DW	DW	DRK

PHASING DIAGRAM DETECTION LEGEND

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



FEATURE	PHASE				
	2	3	4	5	6
Min Green *	10	7	7	7	10
Walk *	7	7	7	-	7
Ped Clear	18	15	19	-	12
Veh. Extension *	3.0	2.0	2.0	2.0	3.0
Max I *	45	25	20	15	45
Yellow	3.8	4.3	3.3	3.8	3.8
Red Clear	2.1	2.2	2.6	2.3	2.1
Red Revert	-	-	-	-	-
Actuations B4 Add *	-	-	-	-	-
Seconds / Actuation *	-	-	-	-	-
Max Initial *	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-
Time To Reduce *	-	-	-	-	-
Minimum Gap	-	-	-	-	-
Locking Detector	-	X	-	-	X
Recall Position	-	VEH. RECALL	-	-	VEH. RECALL
Dual Entry	-	-	-	-	-
Simultaneous Gap	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 | ● Traffic Signal Head |
| ○ Modified Signal Head | N/A |
| □ Sign | □ Sign |
| ○ Pedestrian Signal Head With Push Button & Sign | ○ Pedestrian Signal Head With Push Button & 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 | N/A Right of Way |
| → Directional Arrow | → Directional Arrow |
| ○ Metal Strain Pole | ○ Metal Strain Pole |
| --- Directional Drill | N/A |
| ○ "U-TURN YIELD TO RIGHT TURN" Sign (R10-16) | ○ "U-TURN YIELD TO RIGHT TURN" Sign (R10-16) |

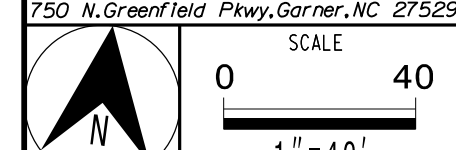
Signal Upgrade - Final Design

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Prepared for the Offices of:
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 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 STATE OF NORTH CAROLINA
 Signal Design Section
 750 N. Greenfield Pkwy, Garner, NC 27526

US 401 Bus./SR 1414 (Raeford Road) at US 401 Bus. (Robeson Street) /McPhee Drive
 Division 6 Cumberland County Fayetteville
 PLAN DATE: March 2018 REVIEWED BY: E D Harris
 PREPARED BY: G B Spell REVIEWED BY: B L Watson

Professional Engineer Seal
 SEAL 29449
 JEFFREY L. WATSON
 3/29/2018
 DATE



REVISIONS	INIT.	DATE

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