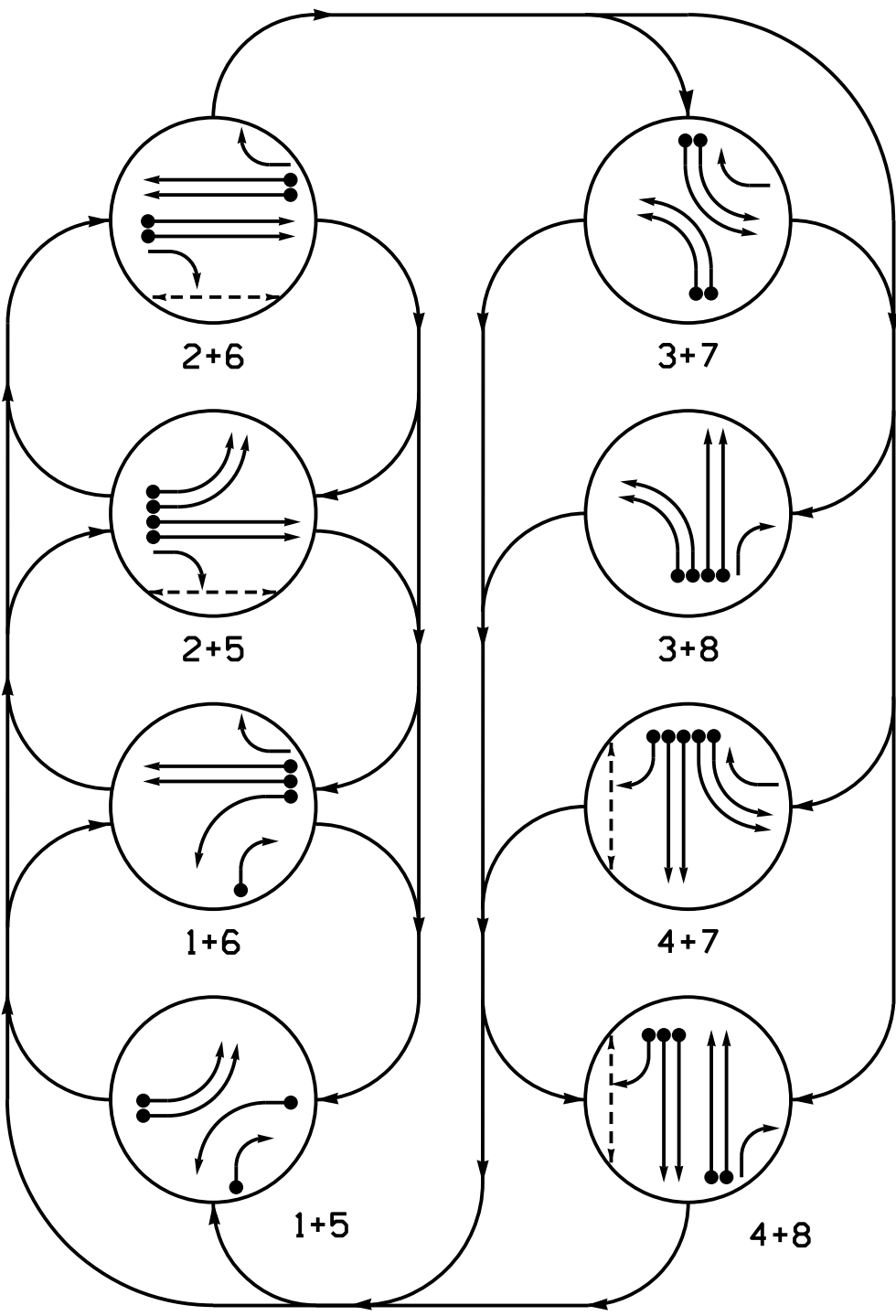


8 Phase
Fully Actuated
w/Emergency Vehicle Preemption
Jacksonville City Signal System

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- 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.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- This intersection features accessible pedestrian signals utilizing percussive tone walk indications and/or speech messages.
- To provide a leading pedestrian interval on phase 2 program FYA head(s) numbered 23 to delay for 7 seconds after the start of the phase 2 walk interval. See Electrical Details for programming.
- To provide a leading pedestrian interval on phase 4 program FYA head(s) numbered 43 to delay for 7 seconds after the start of the phase 4 walk interval. See Electrical Details for programming.
- This intersection features an optical preemption system. Shown locations of optical detectors are conceptual only.
- This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Controller Asset #0090

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

EV PREEMPT PHASES
(Medium Priority)

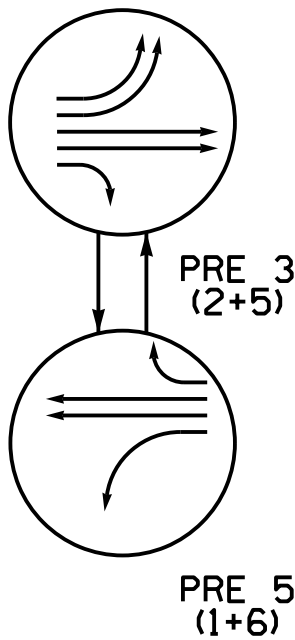
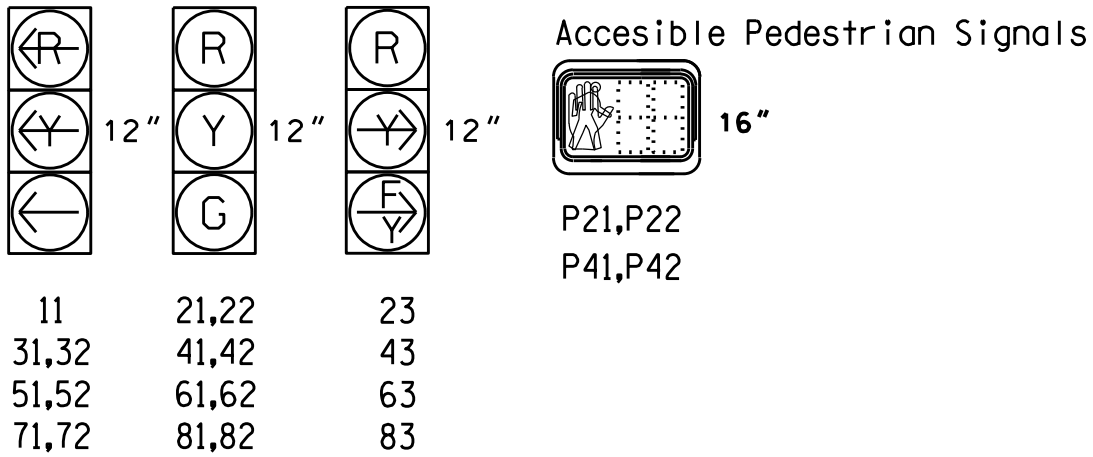


TABLE OF OPERATION

SIGNAL FACE	PHASE											
	1 + 5	1 + 6	2 + 5	2 + 6	3 + 7	3 + 8	4 + 7	4 + 8	PRE 3	PRE 5	FLASH	
11	---	---	---	---	---	---	---	---	---	---	---	
21,22	R	R	G	G	R	R	R	R	G	R	R	
23	R	R	F	F	R	R	R	R	F	R	R	
31,32	---	---	---	---	---	---	---	---	---	---	---	
41,42	R	R	R	R	R	R	G	G	R	R	R	
43	R	R	R	R	R	R	F	F	R	R	R	
51,52	---	---	---	---	---	---	---	---	---	---	---	
61,62	R	G	R	G	R	R	R	R	R	G	R	
63	R	F	R	F	F	R	F	R	R	F	R	
71,72	---	---	---	---	---	---	---	---	---	---	---	
81,82	R	R	R	R	R	G	R	G	R	R	R	
83	F	F	R	R	R	F	R	F	R	R	R	
P21,P22	DW	DW	W	W	DW	DW	DW	DW	DW	DW	DRK	
P41,P42	DW	DW	DW	DW	DW	DW	W	W	DW	DW	DRK	

SIGNAL FACE I.D.

All Heads L.E.D.



LEGEND

- | PROPOSED | EXISTING |
|--|----------|
| Traffic Signal Head | N/A |
| Modified Signal Head | N/A |
| Sign | N/A |
| Pedestrian Signal Head With Push Button & Sign | N/A |
| Metal Strain Pole | N/A |
| Type I Pushbutton Post | N/A |
| Type II Signal Pedestal | N/A |
| Inductive Loop Detector | N/A |
| Non-Intrusive Detection Zone | N/A |
| Controller & Cabinet | N/A |
| Junction Box | N/A |
| 2-in Underground Conduit | N/A |
| Directional Drill | N/A |
| Directional Arrow | N/A |
| Right of Way | N/A |
| Curb Ramp | N/A |
| Optical Detector | N/A |
| "Right Turn Signal" Sign (R10-10R) | N/A |
| "Right Turn "ONLY" Sign (R3-5R) | N/A |
| "TURNING VEHICLES" Yield "TO" | N/A |
| Pedestrians Sign (R10-15R) | N/A |

ACCESSIBLE PEDESTRIAN SIGNAL OPERATION				
SIGNAL FACE	VOICE	TONES	INTERVAL	SPEECH MESSAGE
P21		X	Walk	(Percussive Tone)
	X		Flashing Don't Walk / Don't Walk	Wait, Wait to cross Marine Blvd
P22		X	Walk	(Percussive Tone)
	X		Flashing Don't Walk / Don't Walk	Wait, Wait to cross Marine Blvd
P41		X	Walk	(Percussive Tone)
	X		Flashing Don't Walk / Don't Walk	Wait, Wait to cross Bell Fork Road
P42		X	Walk	(Percussive Tone)
	X		Flashing Don't Walk / Don't Walk	Wait, Wait to cross Bell Fork Road

Signal Upgrade - Sheet 2 of 2

Project #: 230906

DAVENPORT

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NCBELS FIRM LICENSE NO. C-2522

Prepared for
TRANSPORTATION
MOBILITY AND SAFETY
DIVISION
SIGNAL DESIGN SECTION

750 N. Greenfield Pkwy, Garner, NC 27529

0 50
1"=50'

US 17 Bus. (Marine Boulevard)
at
SR 1308 (Gum Branch Road /
Bell Fork Road)

Division 3 Onslow County Jacksonville

PLAN DATE: July 2026 REVIEWED BY: D. Bennett

PREPARED BY: B. Dowell REVIEWED BY:

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL

SEAL
020608
ENGINEER
DONALD R. BENNETT II
2CEB8701D4D84FC...

7/21/2026

SIGNATURE DATE

SIG. INVENTORY NO. 03-0090