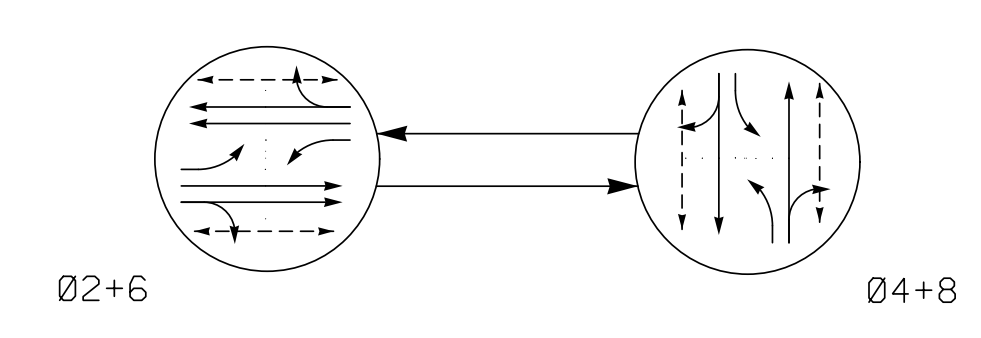


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

EV PREEMPT PHASES (Medium Priority)

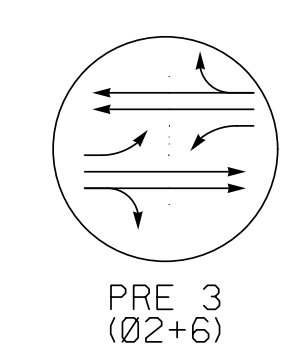
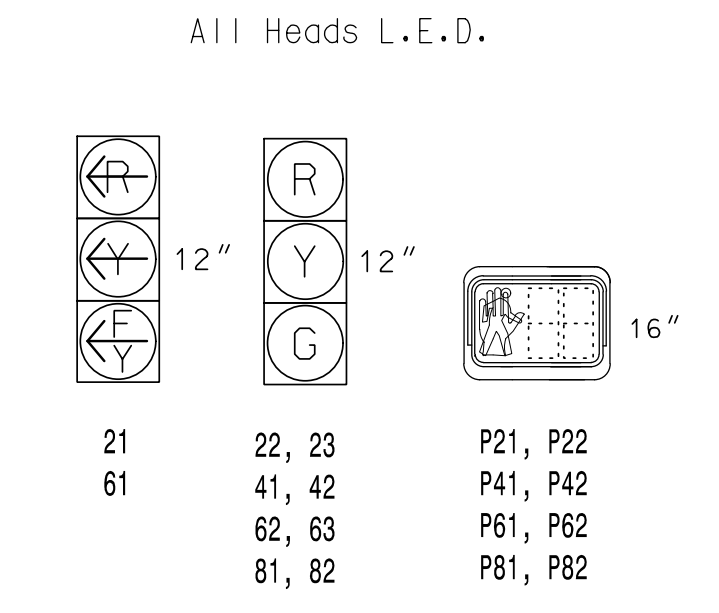


TABLE OF OPERATION

SIGNAL FACE	PHASE			
	02+6	04+8	P	F L A S H
21	F	R	F	Y
22, 23	G	R	G	Y
41, 42	R	G	R	R
61	F	R	F	Y
62, 63	G	R	G	Y
81, 82	R	G	R	R
P21, P22	W	DW	DW	DRK
P41, P42	DW	W	DW	DRK
P61, P62	W	DW	DW	DRK
P81, P82	DW	W	DW	DRK

SIGNAL FACE I.D.



2 Phase Pre-Timed w/ Emergency Vehicle Preemption Gastonia Signal System

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.
- Reposition existing signal heads numbered 22, 23, 62, and 63.
- 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.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
- Install new cabinet on a new cabinet foundation.
- All new cabinets and base extenders shall be black in color. See Project Special Provisions for details.
- Install GPS emergency preemption system per manufacturer's instructions to achieve preemption needed, as shown in phasing diagram.
- Rewire all intersection equipment to the new cabinet.
- City system data
Controller Asset: #0042

EV PREEMPT

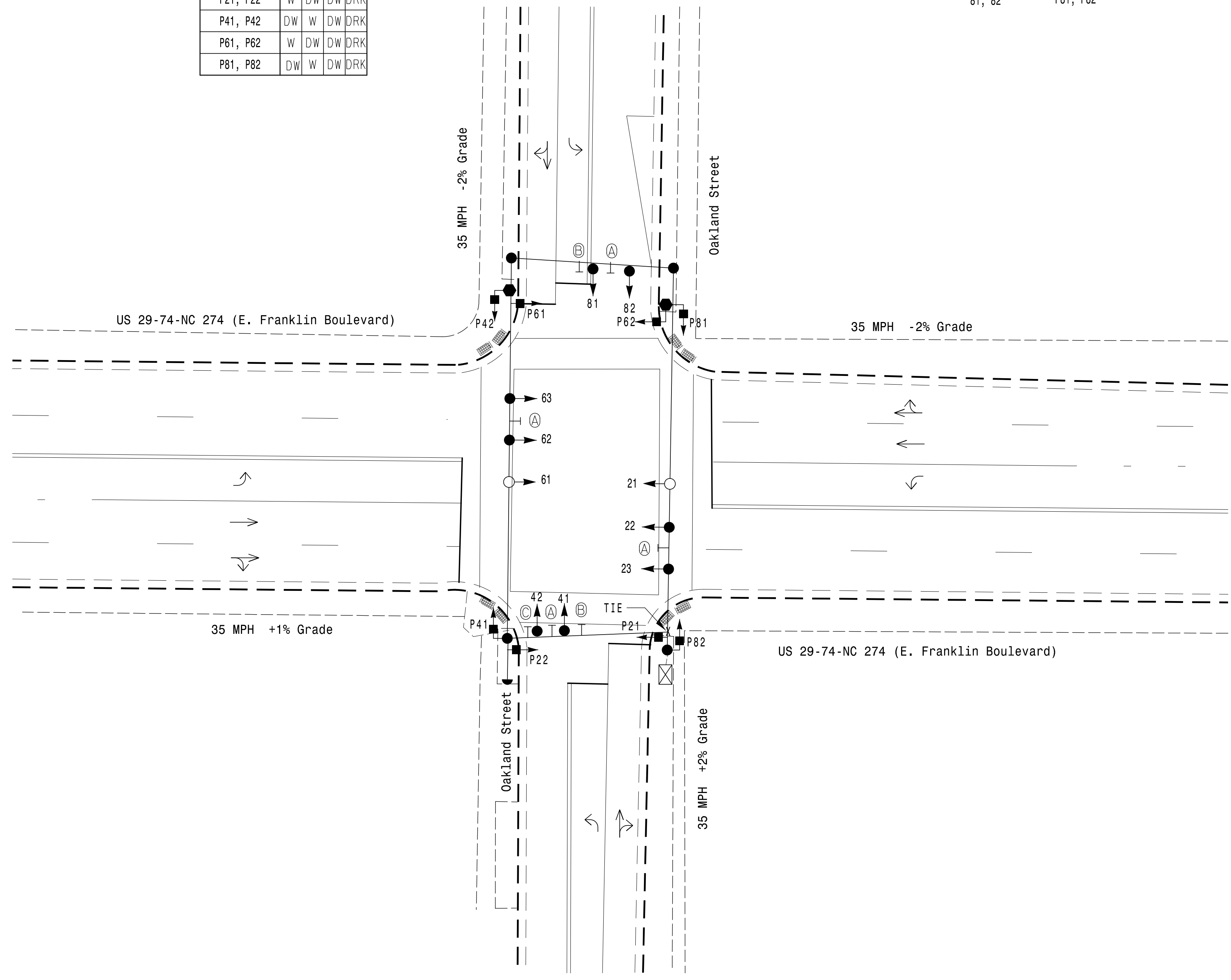
FUNCTION	PRE 3
Exit Phase(s)	2+6
Preempt Override	OFF
Delay Time	0
Ped Clear Through Yellow	Y
Terminate Phases	N
Entrance Walk	1
Entrance Ped Clear	255*
Entrance Min Green	1
Entrance Yellow Change	25.5*
Entrance Red Clear	25.5*
Minimum Dwell Time	10
Preempt Input Extension Time**	2
Preempt Max Time	120
Exit Yellow Change	25.5*
Exit Red Clear	25.5*

* Time defaults to time used for phase during normal operation.
** Program Timing on GPS Detection Unit.

TIMING CHART

FEATURE	PHASE			
	2	4	6	8
Min Green *	10	7	10	7
Walk *	7	7	7	7
Ped Clear	10	16	11	15
Veh. Extension *	-	-	-	-
Max 1 *	45	25	45	25
Yellow	4.0	4.0	4.0	4.0
Red Clear	1.1	1.7	1.1	1.7
Red Revert	2.0	2.0	2.0	2.0
Actuations B4 Add *	-	-	-	-
Seconds / Actuation *	-	-	-	-
Max Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Locking Detector	-	-	-	-
Recall Position	PED/MAX	MAX RECALL	PED/MAX	MAX RECALL
Dual Entry	-	X	-	X
Simultaneous Gap	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.

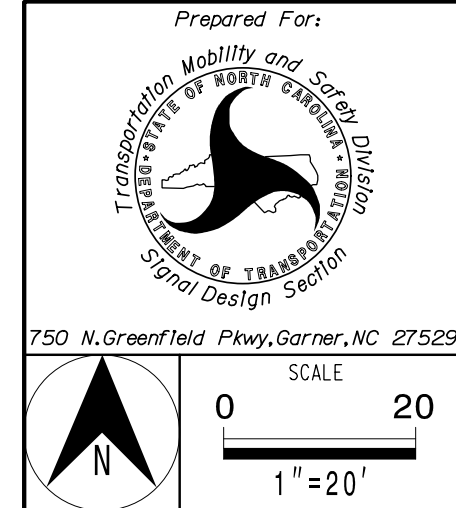


LEGEND

PROPOSED	EXISTING
○ → Traffic Signal Head	● → Traffic Signal Head
● → Modified Signal Head	N/A
— Sign	— Sign
○ Type II Signal Pedestal	○ Type II Signal Pedestal
○ Pedestrian Signal Head With Sign	○ Pedestrian Signal Head With 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
(A) Street Name Sign (D3-1)	(A) Street Name Sign (D3-1)
(B) Left Arrow "ONLY" Sign (R3-5L)	(B) Left Arrow "ONLY" Sign (R3-5L)
(C) "NO TURN ON RED" Sign (R10-11)	(C) "NO TURN ON RED" Sign (R10-11)

Signal Upgrade

PLANS PREPARED IN THE OFFICE OF:
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Raleigh, NC 27601
(919) 677-2000



US 29-74-NC 274 (E. Franklin Boulevard) at Oakland Street
Division 12 Gaston County Gastonia
PLAN DATE: May 2021 REVIEWED BY: SL Phillips
PREPARED BY: SP Pennington REVIEWED BY: KP Baumann

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

3/11/2022
DATE
12-0042
SIG. INVENTORY NO.

3/9/2022 11:13:18 AM Don@le.corr1 ***kimley-horn.com\SELRAL\IPDK\ITS\01\036569 Gastonia Signal System\Signal Design\02-2021.dgn