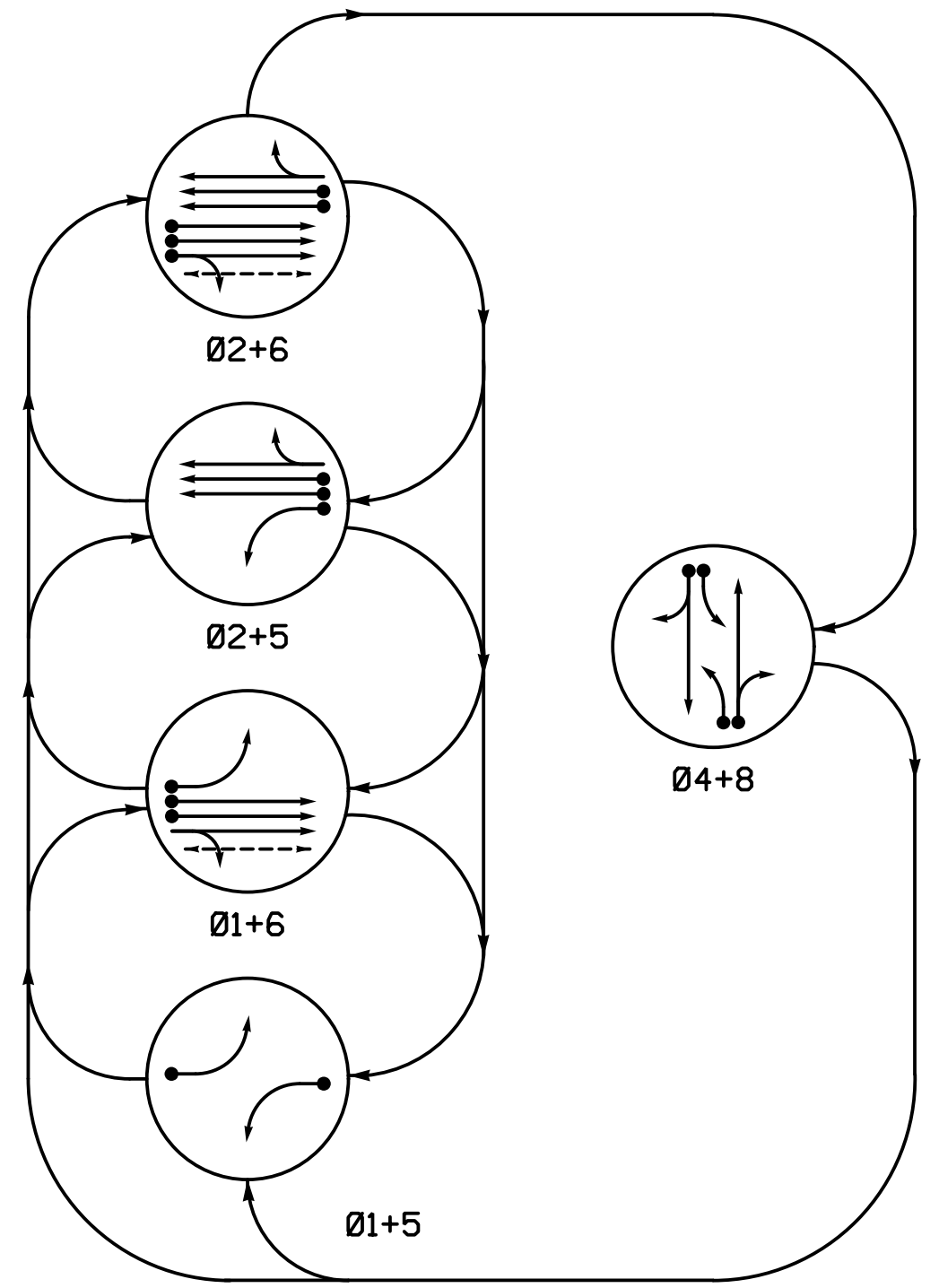


**PHASING DIAGRAM**



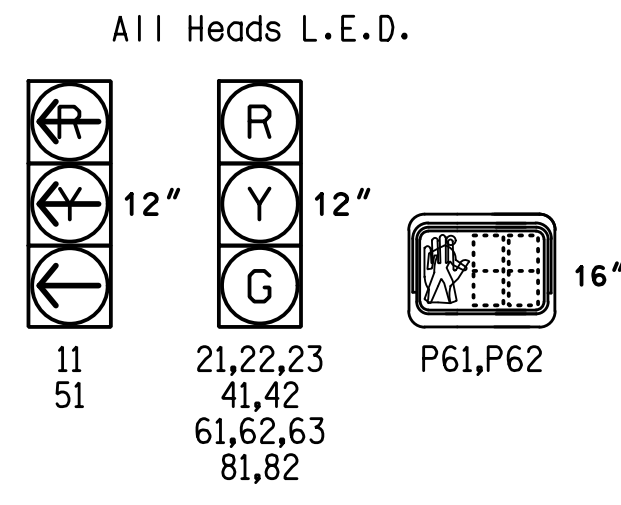
**PHASING DIAGRAM DETECTION LEGEND**

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

**TABLE OF OPERATION**

SIGNAL FACE	PHASE					FLASH
	01+5	02+5	02+6	04+8	FLASH	
11	-	-	-	-	-	-
21,22,23	R	R	G	G	R	Y
41,42	R	R	R	R	G	R
51	-	-	-	-	-	-
61,62,63	R	G	R	G	R	Y
81,82	R	R	R	R	G	R
P61,P62	DW	W	DW	W	DW	DRK

**SIGNAL FACE I.D.**



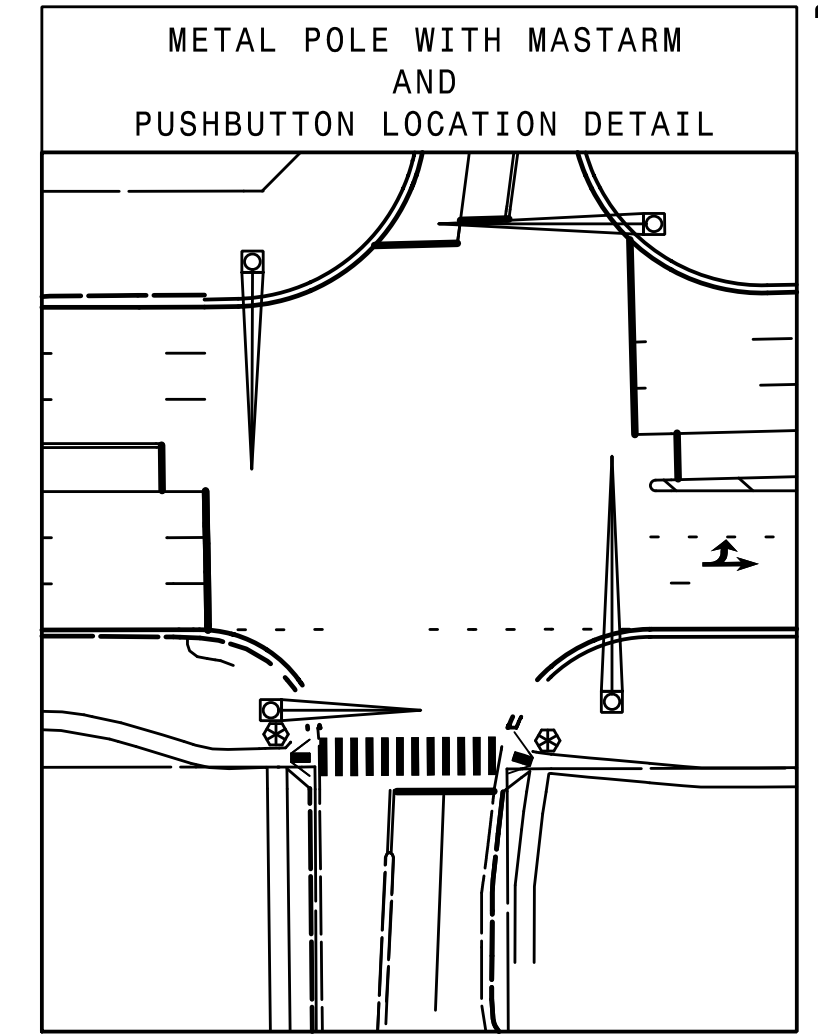
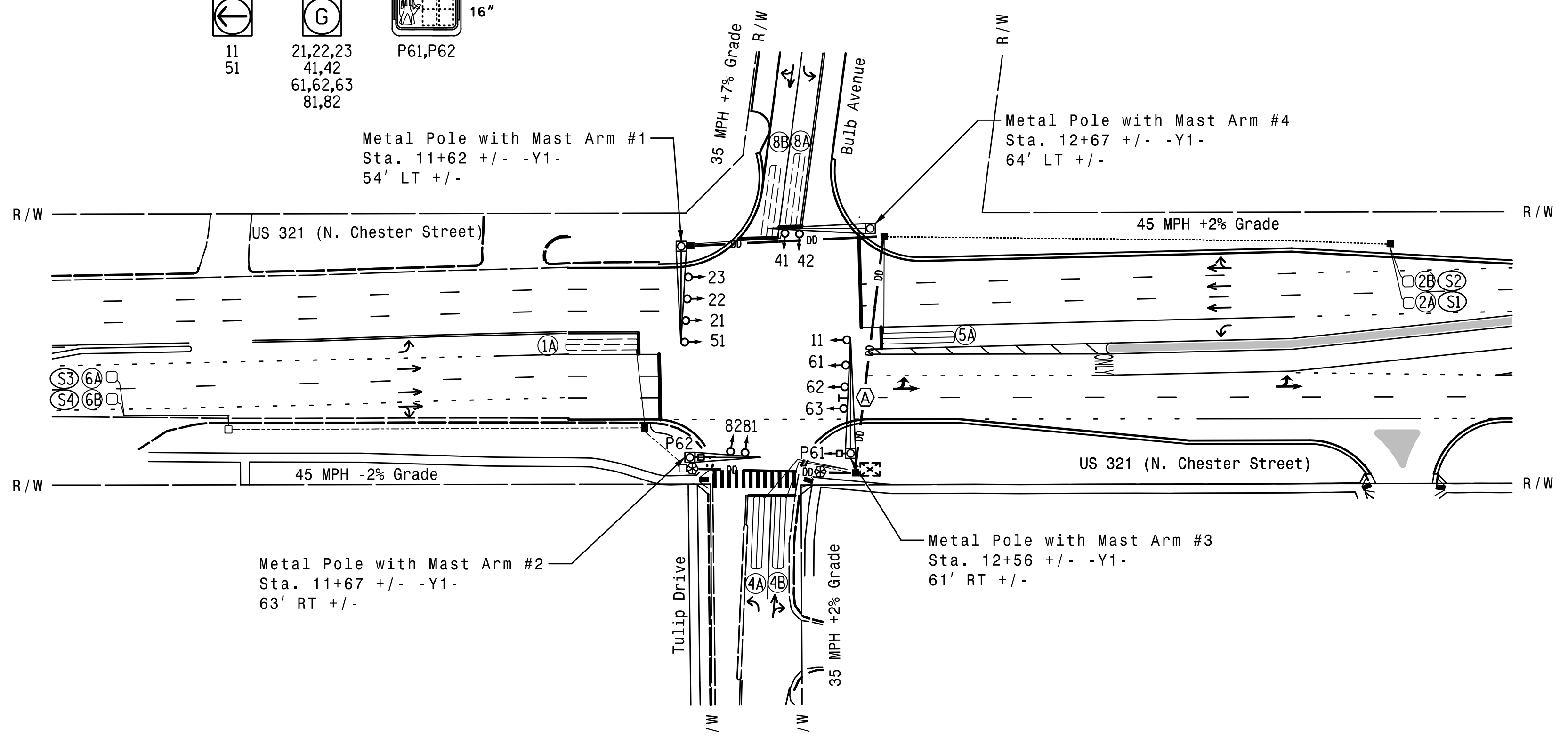
**OASIS 2070 LOOP & DETECTOR INSTALLATION CHART**

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING				SYSTEM LOOP	NEW CARD
					PHASE	CALLING	EXTENSION	FULL TIME DELAY		
1A	6X40	0	2-4-2	-	1	Y	Y	-	3	-
2A/S1	6X6	300	5	Y	2	Y	Y	-	-	Y
2B/S2	6X6	300	5	Y	2	Y	Y	-	-	Y
4A	6X40	0	2-4-2	Y	4	Y	Y	-	3	-
4B	6X40	0	2-4-2	Y	4	Y	Y	-	10	-
5A	6X40	0	2-4-2	Y	5	Y	Y	-	3	-
6A/S3	6X6	300	5	Y	6	Y	Y	-	-	Y
6B/S4	6X6	300	5	Y	6	Y	Y	-	-	Y
8A	6X40	0	2-4-2	-	8	Y	Y	-	3	-
8B	6X40	0	2-4-2	-	8	Y	Y	-	10	-

5 Phase Fully Actuated (Gastonia City Signal System)

**NOTES**

- Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
- Do not program signal for late night flashing operation unless otherwise instructed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- 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.
- Pedestrian pedestals and push buttons are conceptual and shown for reference only. See sheets P1-P3 for push button location details.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Signal System data: Controller Asset #0922.



**OASIS 2070 TIMING CHART**

FEATURE	PHASE					
	1	2	4	5	6	8
Min Green 1 *	7	12	7	7	12	7
Extension 1 *	2.0	6.0	2.0	2.0	6.0	2.0
Max Green 1 *	20	90	25	20	90	25
Yellow Clearance	3.0	4.3	3.7	3.0	4.7	3.5
Red Clearance	3.3	1.1	2.7	3.4	1.3	2.6
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	-	-	-	4	-
Don't Walk 1	-	-	-	-	9	-
Seconds Per Actuation *	-	1.5	-	-	1.5	-
Max Variable Initial *	-	34	-	-	34	-
Time Before Reduction *	-	15	-	-	15	-
Time To Reduce *	-	30	-	-	30	-
Minimum Gap	-	3.0	-	-	3.0	-
Recall Mode	-	MIN RECALL	-	-	MIN RECALL	-
Vehicle Call Memory	-	YELLOW	-	-	YELLOW	-
Dual Entry	-	-	ON	-	-	ON
Simultaneous Gap	ON	ON	ON	ON	ON	ON

**LEGEND**

- |  |                                          |  |          |
|--|------------------------------------------|--|----------|
|  | Traffic Signal Head                      |  | EXISTING |
|  | Modified Signal Head                     |  | N/A      |
|  | Pedestrian Signal Head                   |  | N/A      |
|  | Signal Pole with Guy                     |  | N/A      |
|  | Signal Pole with Sidewalk Guy            |  | N/A      |
|  | Inductive Loop Detector                  |  | N/A      |
|  | Controller & Cabinet                     |  | N/A      |
|  | Junction Box                             |  | N/A      |
|  | 2-in Underground Conduit                 |  | N/A      |
|  | Right of Way                             |  | N/A      |
|  | Directional Arrow                        |  | N/A      |
|  | Metal Pole with Mastarm                  |  | N/A      |
|  | Directional Drill                        |  | N/A      |
|  | Type I Pushbutton Post                   |  | N/A      |
|  | "DO NOT BLOCK INTERSECTION" Sign (R10-7) |  | N/A      |

Signal Upgrade - Final Design

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**

	US 321 (N. Chester Street) at Bulb Avenue / Tulip Drive		
	Division 12 Gaston Co.	Gastonia	
PLAN DATE: September 2016	REVIEWED BY: T.R. Terrell	PREPARED BY: J.A. Wagner	REVIEWED BY: N.R. Simmons
SCALE: 1"=50'		REVISIONS:	
HNTB		HNTB NORTH CAROLINA, P.C. 343 E. Six Forks Road, Suite 200 Raleigh, North Carolina 27609 NC License No: C-1554 (919) 546-8997	

\* 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.