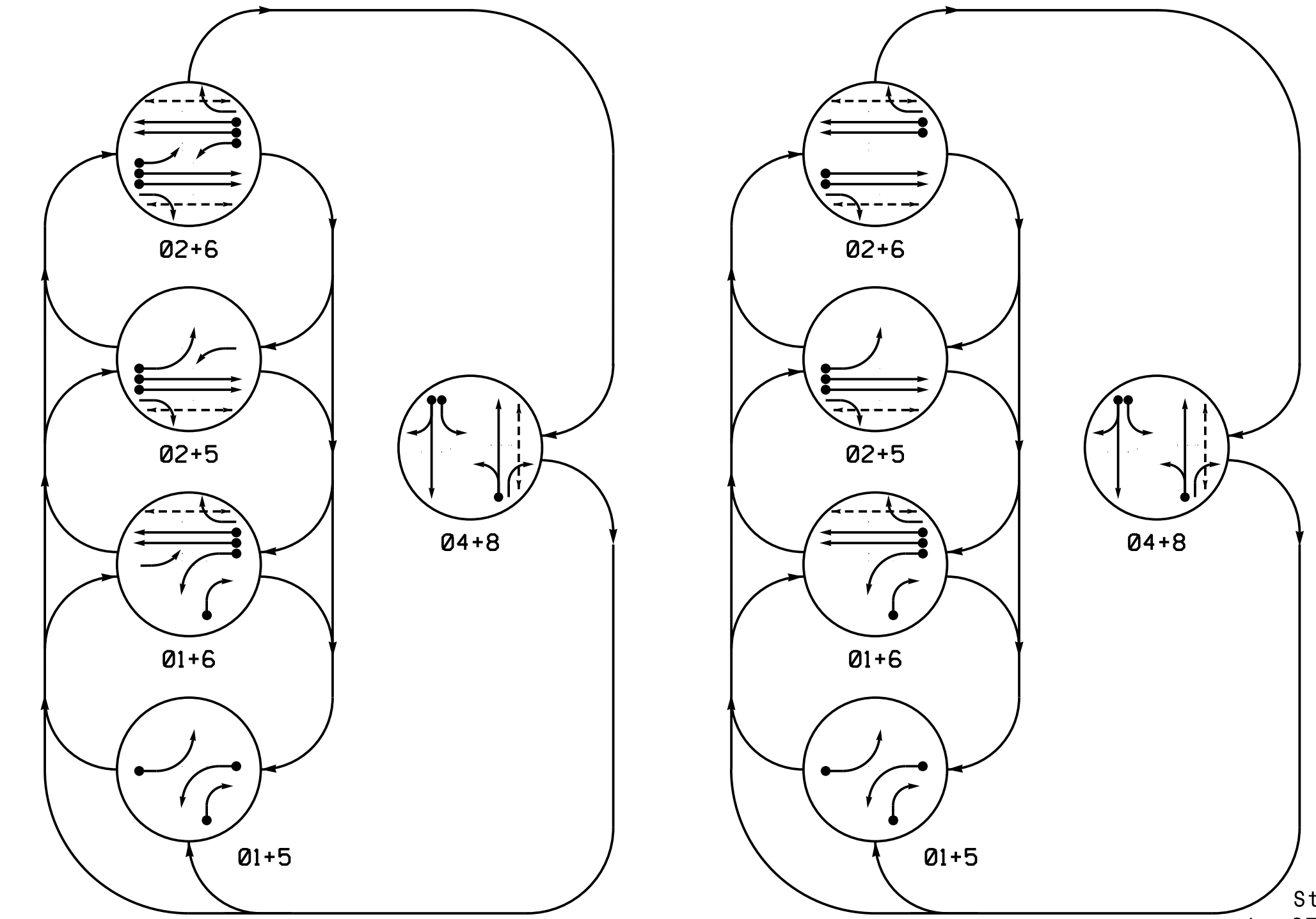


DEFAULT PHASING DIAGRAM

ALTERNATE PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE					
	01+5	01+6	02+5	02+6	04+8	F
11						
21,22	R	R	G	G	R	Y
23	R	R	F	F	R	Y
41	R	R	F	F	R	Y
42,43	R	R	R	R	G	R
51						
61,62	R	G	R	G	R	Y
63	R	F	R	F	R	Y
81,82	R	R	R	R	G	R
83	F	F	R	R	F	R
P21,P22	DW	DW	W	W	DW	DRK
P61,P62	DW	W	DW	W	DW	DRK
P81,P82	DW	DW	DW	DW	W	DRK

ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE					
	01+5	01+6	02+5	02+6	04+8	F
11						
21,22	R	R	G	G	R	Y
23	R	R	F	F	R	Y
41	R	R	F	F	R	Y
42,43	R	R	R	R	G	R
51						
61,62	R	G	R	G	R	Y
63	R	F	R	F	R	Y
81,82	R	R	R	R	G	R
83	F	F	R	R	F	R
P21,P22	DW	DW	W	W	DW	DRK
P61,P62	DW	W	DW	W	DW	DRK
P81,P82	DW	DW	DW	DW	W	DRK

OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

ZONE	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING							
					PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
1A	6x40	0	*	*	1	Y	Y	-	-	15**	-	-
1B	6x40	0	*	*	1	Y	Y	-	-	15	-	-
4A	6x40	0	*	*	4	Y	Y	-	-	-	-	-
4B	6x40	0	*	*	4	Y	Y	-	-	10	-	-
5A	6x40	0	*	*	5	Y	Y	-	-	15**	-	-
8A	6x40	0	*	*	8	Y	Y	-	-	-	-	-

- * Multizone Microwave Detection
- ** Disable Delay During Alternate Phasing Operation.
- # Disable phase call for loop(s) during alternate phasing.

5 Phase Fully Actuated Wilmington Signal System

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phases 1 and/or 5 may be lagged.
4. Set all detector units to presence mode.
5. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
6. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
7. All pedestrian pushbuttons shall be located in the field by the Division Traffic Engineer before installation.
8. The Division (City) Traffic Engineer will determine the hours of use for each phasing plan.
9. This intersection uses multizone microwave detection. Install the detectors according to the manufacturer's instructions to achieve the desired detection.
10. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
11. Signal system data: Controller Asset #0847.

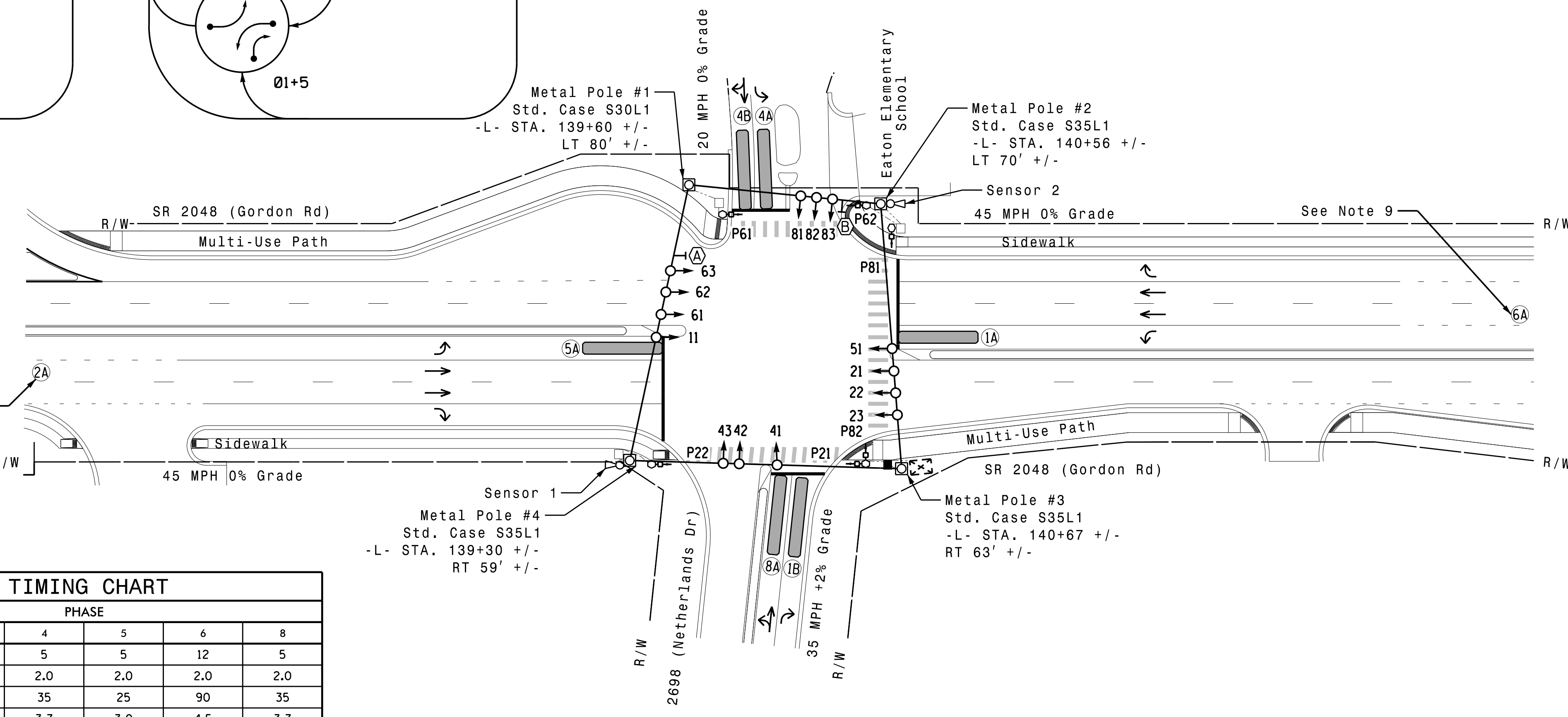
LEGEND

- | | | | |
|--|--|--|--|
| | PROPOSED Traffic Signal Head | | EXISTING Traffic Signal Head |
| | PROPOSED Modified Signal Head | | EXISTING Modified Signal Head |
| | PROPOSED Sign | | EXISTING Sign |
| | PROPOSED Pedestrian Signal Head | | EXISTING Pedestrian Signal Head |
| | PROPOSED Signal Pole with Guy | | EXISTING Signal Pole with Guy |
| | PROPOSED Signal Pole with Sidewalk Guy | | EXISTING Signal Pole with Sidewalk Guy |
| | PROPOSED Microwave Detection Zone | | EXISTING Microwave Detection Zone |
| | PROPOSED Out of Pavement Detector | | EXISTING Out of Pavement Detector |
| | PROPOSED Controller & Cabinet | | EXISTING Controller & Cabinet |
| | PROPOSED Junction Box | | EXISTING Junction Box |
| | PROPOSED 2-in Underground Conduit | | EXISTING 2-in Underground Conduit |
| | PROPOSED Right of Way | | EXISTING Right of Way |
| | PROPOSED Directional Arrow | | EXISTING Directional Arrow |
| | PROPOSED Directional Drill | | EXISTING Directional Drill |
| | PROPOSED Metal Strain Pole | | EXISTING Metal Strain Pole |
| | PROPOSED Type II Signal Pedestal | | EXISTING Type II Signal Pedestal |
| | PROPOSED Curb Ramp | | EXISTING Curb Ramp |
| | PROPOSED Right Arrow "Only" Sign (R3-5R) | | EXISTING Right Arrow "Only" Sign (R3-5R) |
| | PROPOSED "RIGHT TURN YIELD TO U-TURN" Sign | | EXISTING "RIGHT TURN YIELD TO U-TURN" Sign |

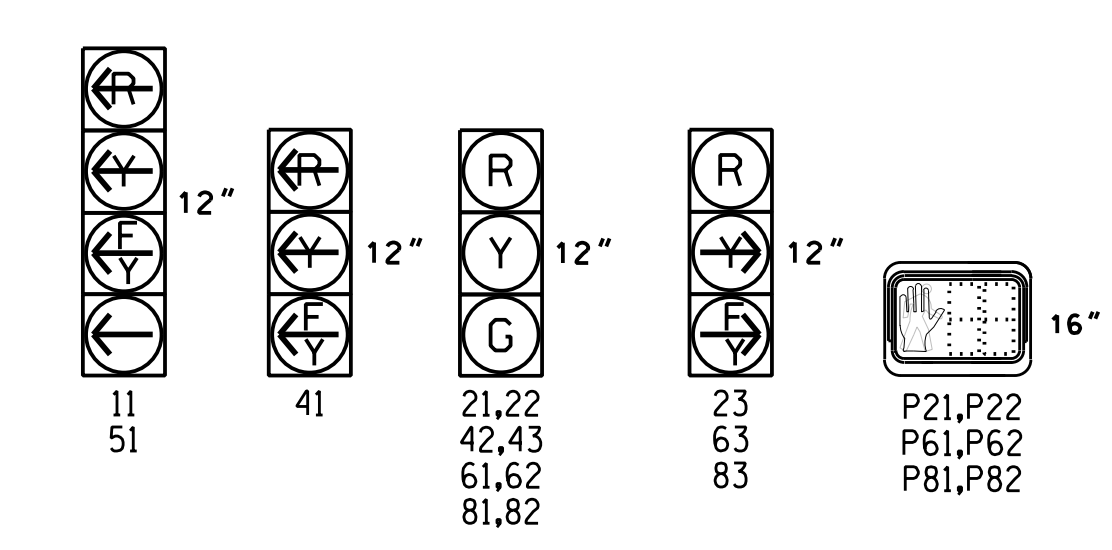
OASIS 2070 TIMING CHART

FEATURE	PHASE					
	1	2	4	5	6	8
Min Green 1 *	5	12	5	5	12	5
Extension 1 *	2.0	2.0	2.0	2.0	2.0	2.0
Max Green 1 *	25	90	35	25	90	35
Yellow Clearance	3.0	4.5	3.7	3.0	4.5	3.7
Red Clearance	3.2	1.7	3.6	3.1	1.7	3.6
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	7	-	-	7	7
Don't Walk 1	-	19	-	-	13	23
Walk Advance Time	-	-	-	-	-	-
Seconds Per Actuation *	-	-	-	-	-	-
Max Variable Initial *	-	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-	-
Time To Reduce *	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-
Recall Mode	-	MIN RECALL	-	-	MIN RECALL	-
Vehicle Call Memory	-	YELLOW	-	-	YELLOW	-
Dual Entry	-	-	ON	-	-	ON
Simultaneous Gap	ON	ON	ON	ON	ON	ON

* 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.



SIGNAL FACE I.D.
All Heads L.E.D.



RADAR DETECTION SYSTEM

FUNCTION	Sensor 1	Sensor 2
Channel	1	1
Phase	2	6
Direction of Travel	EB	WB
Detection Zone (ft)	100-600	100-600
Enable Speed	Y	Y
Speed Range (mph)	35-100	35-100
Enable Estimated Time of Arrival	Y	Y
Estimated Time of Arrival (sec)	1.0-6.5	1.0-6.5

Signal Upgrade - Final Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared for: **SR 2048 (Gordon Rd) at SR 2698 (Netherlands Dr) / Eaton Elementary School**

Division 3 New Hanover County Wilmington

PLAN DATE: May 2022 REVIEWED BY: N.K. Vlanich

PREPARED BY: E.E. Tiller REVIEWED BY: N.R. Simmons

SCALE: 0 40 1"=40'

REVISIONS: INIT. DATE

DocuSigned by: **Natasha R. Simmons** 5/17/2024

SIGNATURE: DATE

SIG. INVENTORY NO. 03-0847