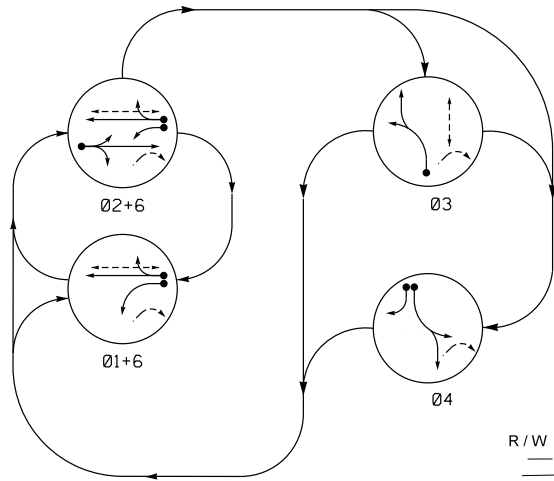


**PHASING DIAGRAM**



**PHASING DIAGRAM DETECTION LEGEND**

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

**TABLE OF OPERATION**

SIGNAL FACE	PHASE				
	01+6	02+6	03	04	FLHS
11	←	→	←	→	Y
21, 22	R	G	R	R	Y
31	R	R	G	R	R
32, 33	R	R	G	R	R
41	R	R	R	G	R
42	R	R	R	G	R
61, 62	G	G	R	R	Y
P31, P32	DW	DW	W	DW	DRK
P61, P62	W	W	DW	DW	DRK

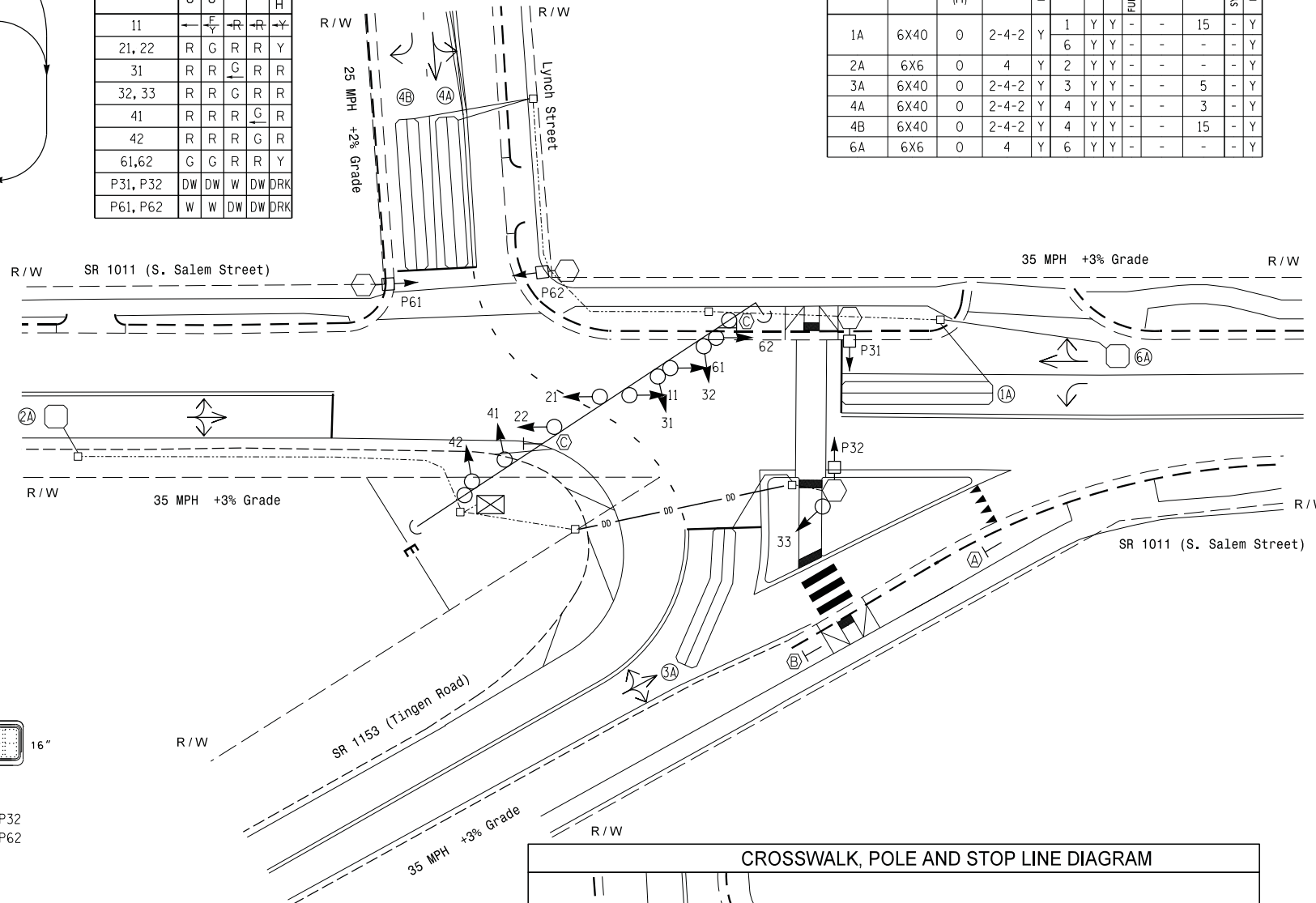
**OASIS 2070 LOOP & DETECTOR INSTALLATION CHART**

LOOP	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	2-4-2	Y	1	Y	Y	-	-	15	-	Y
2A	6X6	0	4	Y	2	Y	Y	-	-	-	-	Y
3A	6X40	0	2-4-2	Y	3	Y	Y	-	-	-	-	Y
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	3	-	Y
4B	6X40	0	2-4-2	Y	4	Y	Y	-	-	15	-	Y
6A	6X6	0	4	Y	6	Y	Y	-	-	-	-	Y

4 Phase Fully Actuated (Isolated)

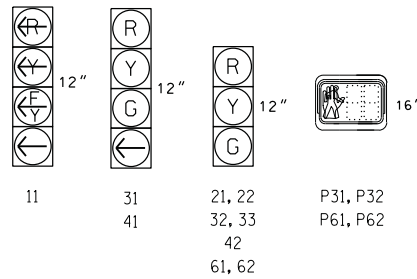
**NOTES**

- Refer to "Roadway Standard Drawings NCDOT" dated January 2018, "Standard Specifications for Roads and Structures" dated January 2018 and all applicable sections of the latest version of the generic Project Special Provisions. The PSP can be accessed at the following website: [connect.ncdot.gov/resources/safety/pages/ITS-Design-Resources.aspx](http://connect.ncdot.gov/resources/safety/pages/ITS-Design-Resources.aspx)
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Enable Backup Protect for phase 6 to allow the controller to clear from phase 2+6 to phase 1+6 by progressing through an all red display.
- The order of phase 3 and phase 4 may be reversed.
- 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.



**SIGNAL FACE I.D.**

All Heads L.E.D.

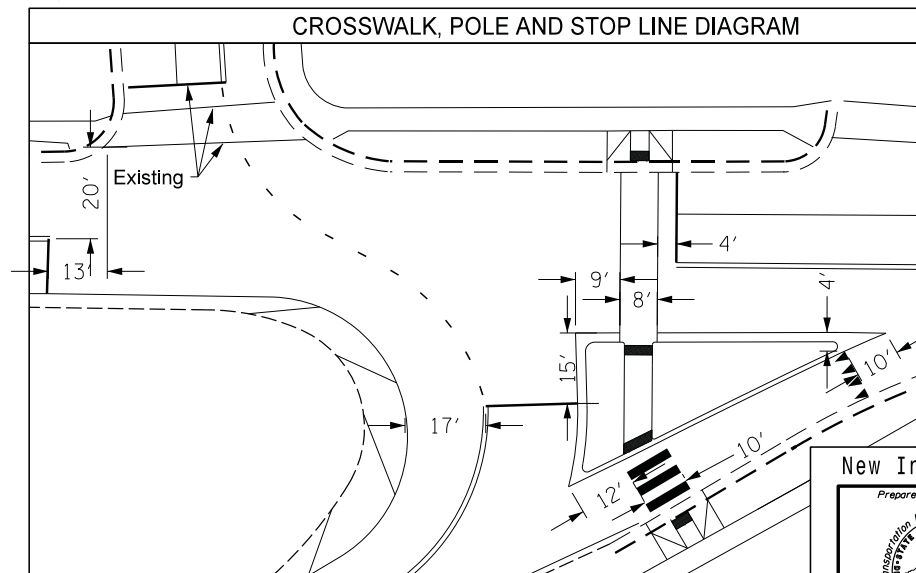


NC Dept of Transportation  
Division of Highways  
Final Drawing Date: 5/22/2020  
Design by: [Signature]  
ITS & [Signature]

**LEGEND**

- | PROPOSED   | EXISTING   |
|--|--|
| ○ → Traffic Signal Head                                | ● → Modified Signal Head                               |
| □ → Pedestrian Signal Head With Push Button & Sign     | □ → Sign   |
| ○ → Signal Pole with Guy                               | □ → Signal Pole with Sidewalk Guy                      |
| □ → Inductive Loop Detector                            | □ → Controller & Cabinet                               |
| □ → Junction Box                                       | □ → Junction Box                                       |
| --- 2-in Underground Conduit                           | --- 2-in Underground Conduit                           |
| N/A → Right of Way                                     | --- Right of Way                                       |
| N/A → Directional Arrow                                | → Directional Arrow                                    |
| N/A → Curb Ramp  | ▲ Curb Ramp  |
| --- Directional Drill                                  | N/A  |
| --- Permanent Maintenance Easement                     | N/A  |
| ○ Type II Signal Pedestal                              | ● "YIELD" Sign (R1-2)                                  |
| ○ "YIELD" Sign (R1-2)                                  | ○ Pedestrian Sign (W11-2) with Diagonal Arrow (W16-7p) |
| ○ Pedestrian Sign (W11-2) with Diagonal Arrow (W16-7p) | ○ "NO TURN ON RED" Sign (R10-11a)                      |
| ○ "NO TURN ON RED" Sign (R10-11a)                      | ○  |

**CROSSWALK, POLE AND STOP LINE DIAGRAM**



**OASIS 2070 TIMING CHART**

FEATURE	PHASE				
	1	2	3	4	6
Min Green 1 *	7	10	7	7	10
Extension 1 *	2.0	3.0	2.0	2.0	3.0
Max Green 1 *	20	35	20	20	35
Yellow Clearance	3.0	3.7	3.7	3.1	3.7
Red Clearance	1.9	2.5	2.7	3.4	2.5
Red Revert	2.0	2.0	2.0	2.0	5.0
Walk 1 *	-	-	7	-	7
Don't Walk 1	-	-	8	-	8
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	-	-	-	-	-
Simultaneous Gap	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.

**New Installation**

Prepared in the Offices of:  
  
 RAMEY KEMP ASSOCIATES, INC.  
 6938 Furlington Place Raleigh, North Carolina 27608  
 Phone: 919.872.0151 www.rkainc.com | NC License No. C-0910

SR 1011 (S. Salem Street)  
at  
SR 1153 (Tingen Road) /  
Lynch Street  
Wake County Apex  
Division 5

PLAN DATE: May 2020 REVIEWED BY: WJ Hamilton  
PREPARED BY: JT Stiff RKA PROJ. NO.: 20020 (040)

REVISIONS: \_\_\_\_\_ INIT.: \_\_\_\_\_ DATE: \_\_\_\_\_

SCALE: 0 20  
1" = 20'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL  
Seal Redacted - Not for Construction

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_  
SIG. INVENTORY NO. 05-1564

\*\*\*\*\* SYSTEMS \*\*\*\*\*  
\*\*\*\*\* DATE \*\*\*\*\*  
\*\*\*\*\* USER NAME \*\*\*\*\*