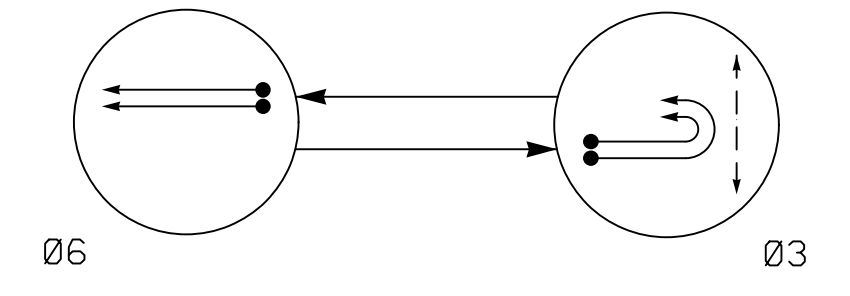


**PHASING DIAGRAM**



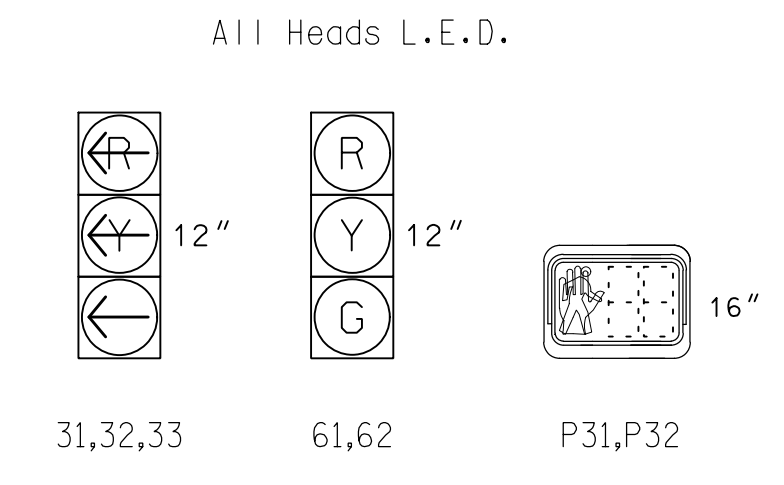
**PHASING DIAGRAM DETECTION LEGEND**

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

**TABLE OF OPERATION**

SIGNAL FACE	PHASE		
	Ø6	Ø3	FLASH
31,32,33	R	R	R
61,62	G	R	Y
P31,P32	DW	W	DRK

**SIGNAL FACE I.D.**



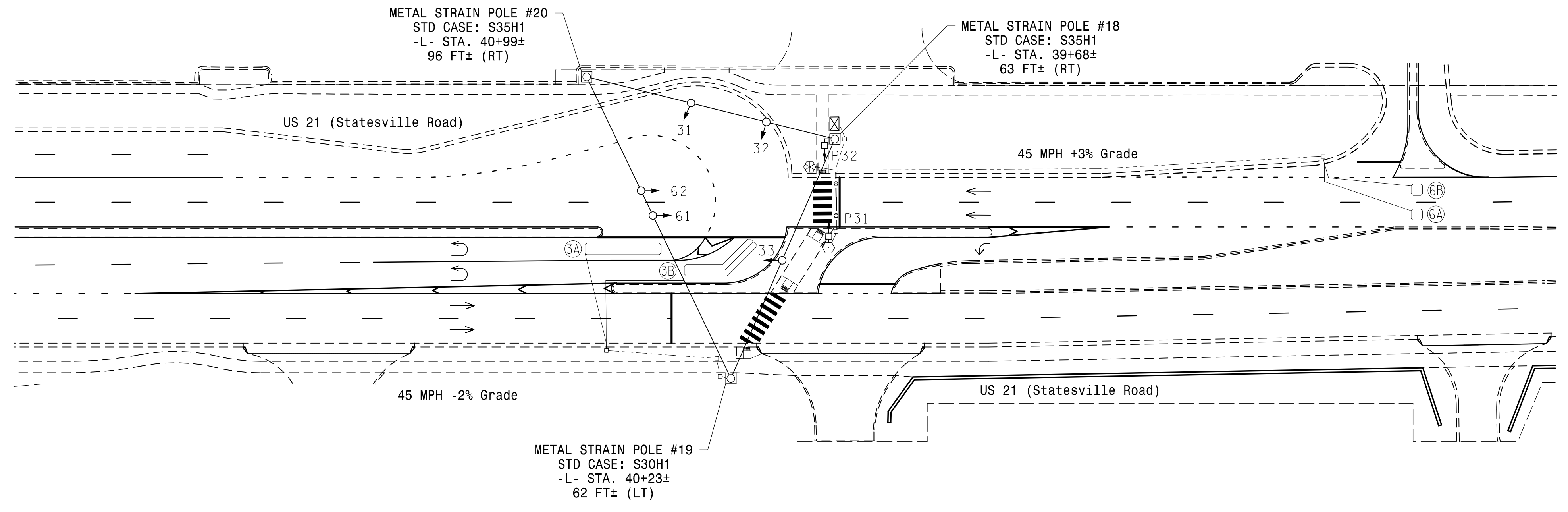
**OASIS 2070 LOOP & DETECTOR INSTALLATION CHART**

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
3A	6X40	0	2-4-2	Y	3	Y	Y	-	-	-	-	Y
3B	6X40	0	2-4-2	Y	3	Y	Y	-	-	-	-	Y
6A	6X6	300	4	Y	6	Y	Y	-	-	-	-	Y
6B	6X6	300	4	Y	6	Y	Y	-	-	-	-	Y

**2 Phase Fully Actuated (Gilead Road Closed Loop System)**

**NOTES**

- Refer to "Roadway Standard Drawings NCDOT" dated January 2018, "Standard Specifications for Roads and Structures" dated January 2018.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- The cabinet should be designed to include an Auxiliary Output File for future use.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- All pedestrian pushbuttons shall be located in the field by the Division Traffic Engineer before installation.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Closed loop system data: Controller Asset #2265.



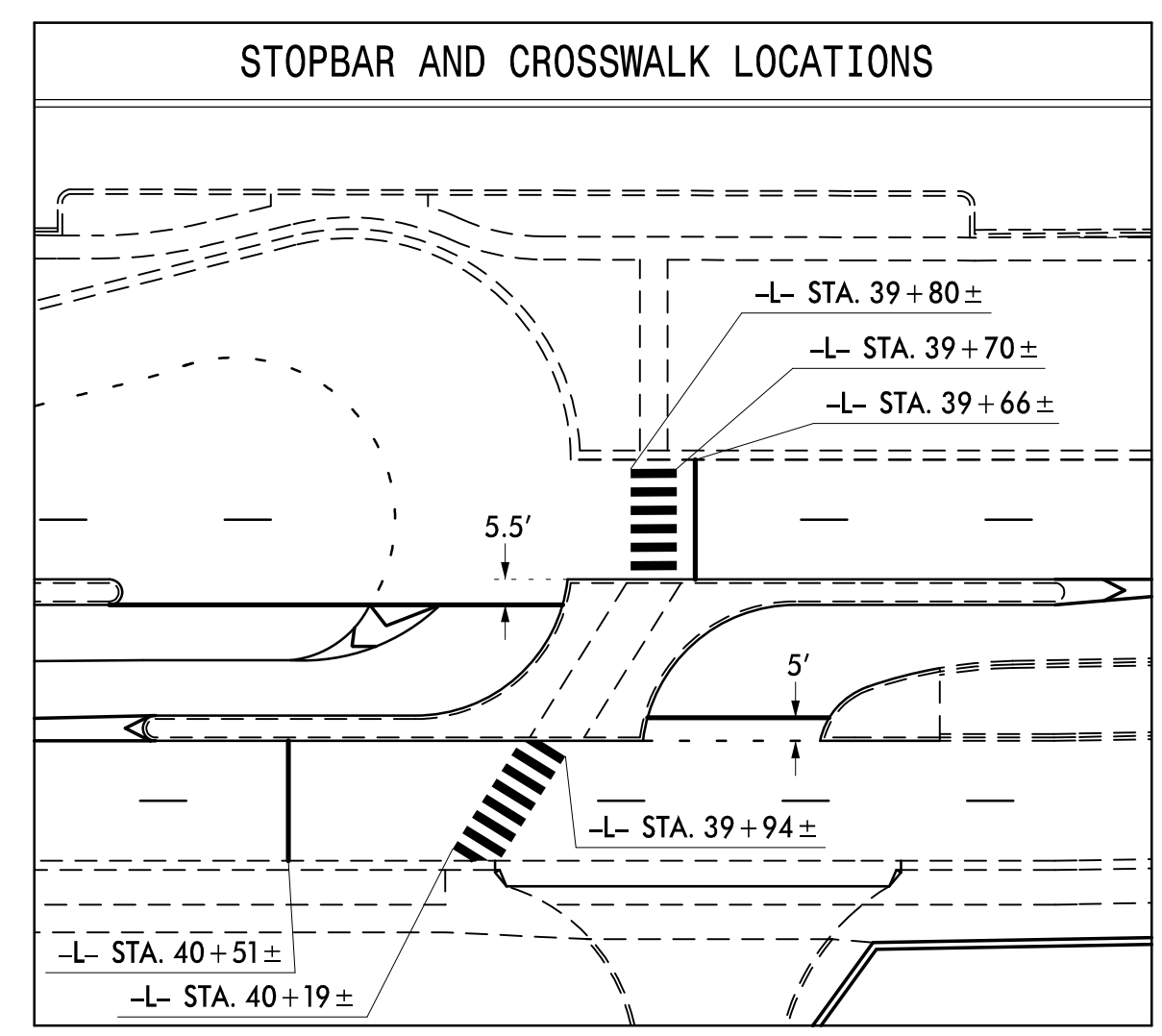
**OASIS 2070 TIMING CHART**

FEATURE	PHASE	
	3	6
Min Green 1 *	7	12
Extension 1 *	2.0	6.0
Max Green 1 *	25	90
Yellow Clearance	3.0	4.3
Red Clearance	3.9	1.9
Red Revert	2.0	2.0
Walk 1 *	7	-
Don't Walk 1	6	-
Seconds Per Actuation *	-	1.5
Max Variable Initial *	-	34
Time Before Reduction *	-	15
Time To Reduce *	-	30
Minimum Gap	-	3.0
Recall Mode	-	MIN RECALL
Vehicle Call Memory	-	YELLOW
Dual Entry	-	-
Simultaneous Gap	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.

**LEGEND**

<b>PROPOSED</b>		<b>EXISTING</b>
○	Traffic Signal Head	●
◄	Modified Signal Head	N/A
+	Sign	+
⊕	Pedestrian Signal Head	⊕
+	Pushbutton & Sign	+
⊗	Inductive Loop Detector	⊗
⊠	Controller & Cabinet	⊠
⊠	Junction Box	⊠
---	2-in Underground Conduit	---
DD	Directional Drill	N/A
N/A	Right of Way	---
→	Directional Arrow	→
⊙	Metal Strain Pole	⊙
⊕	Type I Pushbutton Post	⊕
○	Type II Signal Pedestal	●



**STV 100 Years**  
**STV Engineers, Inc.**  
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**NEW INSTALLATION**

Prepared For: Transportation Mobility and Safety Division  
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
 Signal Design Section  
 750 N. Greenfield Pkwy, Garner, NC 27529  
 SCALE: 1" = 40'

**US 21 (Statesville Road) at U-turn Bulb-out North of SR 2136 (Gilead Road)**  
 Division 10 Wecklenburg Huntersville  
 PLAN DATE: November 2017 REVIEWED BY: R. Mattern  
 PREPARED BY: J. Trueblood REVIEWED BY: J. Carroll  
 REVISIONS: INIT. DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL  
 NORTH CAROLINA PROFESSIONAL ENGINEER  
 SEAL 030005  
 JUSTIN T. CARROLL  
 DATE: 4/18/2018  
 SIG. INVENTORY NO. 10-2265