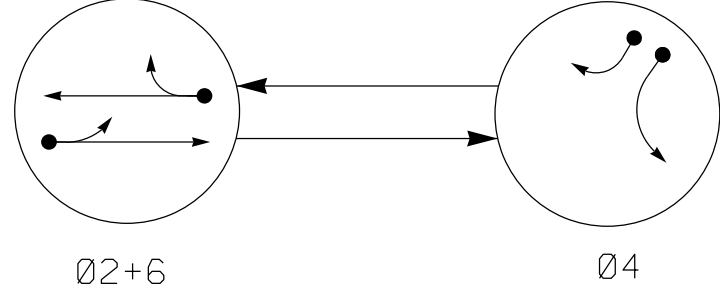


2 Phase Fully Actuated Isolated

PHASING DIAGRAM

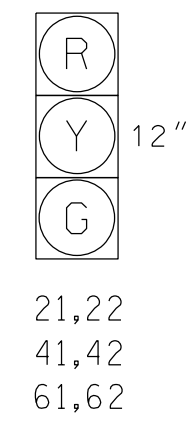


PHASING DIAGRAM DETECTION LEGEND
 ● DETECTED MOVEMENT
 — UNDETECTED MOVEMENT (OVERLAP)
 - - - UNSIGNALIZED MOVEMENT
 <- - - - PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE		
	02+6	04	FLASH
21,22	G	R	Y
41,42	R	G	R
61,62	G	R	Y

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



RADAR DETECTION SYSTEM

FUNCTION	Sensor 1 (2A)	Sensor 2 (6A)
Channel	1	2
Phase	2	6
Direction of Travel	EB	WB
Detection Zone (ft)	100-500	100-500
Enable Speed	Y	Y
Speed Range (mph)	35-100	35-100
Enable Estimated Time of Arrival	Y	Y
Estimate Time of Arrival (sec)	2.5-6.5	2.5-6.5

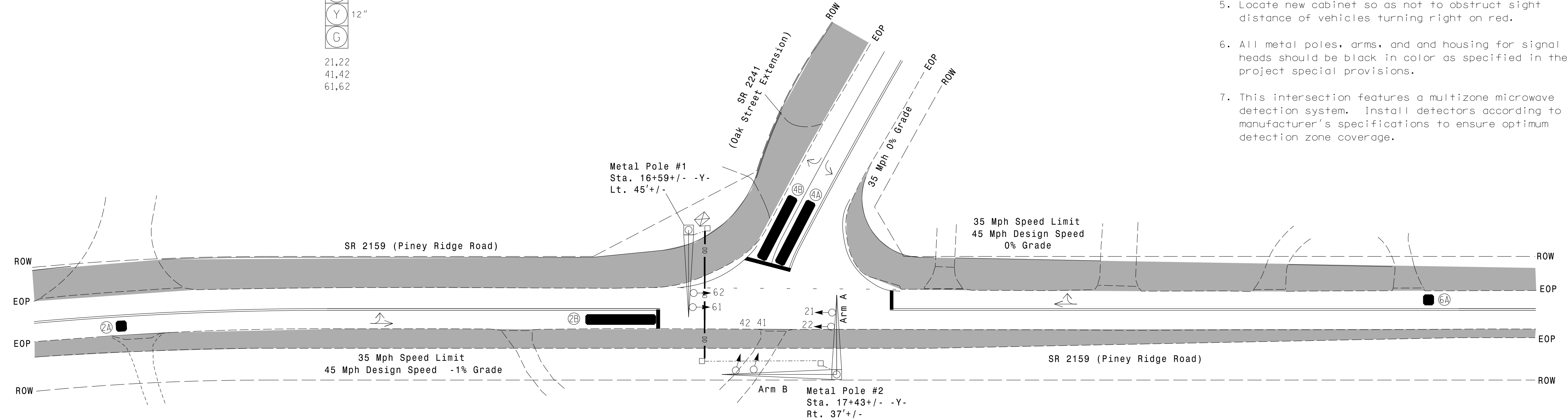
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

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
2A	*	300	*	Y	2	Y	Y	-	-	-	-	-
2B	*	0	*	Y	2	Y	Y	-	2.0	5	-	-
4A	*	0	*	Y	4	Y	Y	-	-	3	-	-
4B	*	0	*	Y	4	Y	Y	-	-	15	-	-
6A	*	300	*	Y	6	Y	Y	-	-	-	-	-

* Multizone Microwave Detection Zones

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.
- Set all detector units to presence mode.
- All pavement markings are existing.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- All metal poles, arms, and and housing for signal heads should be black in color as specified in the project special provisions.
- This intersection features a multizone microwave detection system. Install detectors according to manufacturer's specifications to ensure optimum detection zone coverage.



OASIS 2070 TIMING CHART

FEATURE	PHASE		
	2	4	6
Min Green 1 *	12	7	12
Extension 1 *	6.0	2.0	6.0
Max Green 1 *	90	30	90
Yellow Clearance	4.6	3.0	4.5
Red Clearance	1.7	1.8	1.6
Red Revert	2.0	2.0	2.0
Walk 1 *	-	-	-
Don't Walk 1	-	-	-
Seconds Per Actuation *	2.5	-	2.5
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	-	-	-
Simultaneous Gap	ON	ON	ON

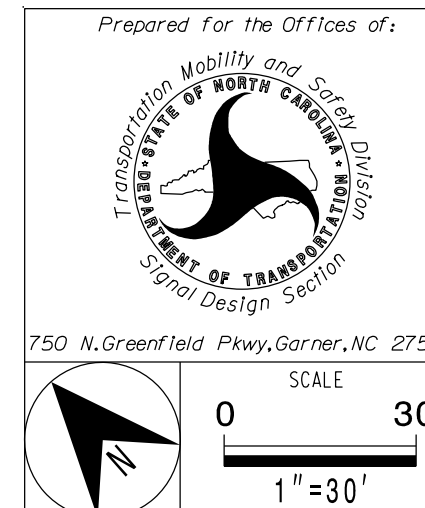
* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

LEGEND

PROPOSED	EXISTING
○ → Traffic Signal Head	● → Traffic Signal Head
— Sign	— Sign
■ Multizone Microwave Detection	N/A
□ Controller & Cabinet	□ Controller & Cabinet
□ Junction Box	■ Junction Box
- - - 2-in Underground Conduit	- - - 2-in Underground Conduit
N/A Right of Way	- - - Right of Way
→ Directional Arrow	→ Directional Arrow
⊙ Metal Pole with Mastarm	⊙ Metal Pole with Mastarm
— Directional Drill	N/A
■ Construction Zone	N/A

NC Dept of Transportation
 Division of Highways
 Final Drawing Date: 1/12/2018
 Documented by: R. N. Zinner
 ITS & Signals Unit

Signal Upgrade-Temporary Design



SR 2159 (Piney Ridge Road) at SR 2241 (Oak Street Extension)

Division 13 Rutherford County Forest City

PLAN DATE: Dec. 2017 REVIEWED BY: J. L. Lewis

PREPARED BY: J. Ma VHB PROJECT NO.: 38536.09

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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 NORTH CAROLINA PROFESSIONAL ENGINEER
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 SIG. INVENTORY NO. 13-1241T