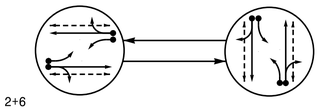
Docusign Envelope ID: 05876772-1DAF-4309-B21B-9789C5DB6FF4

PROJECT REFERENCE NO.	SHEET NO.
HL-0065	Sig. 12.0

PHASING DIAGRAM



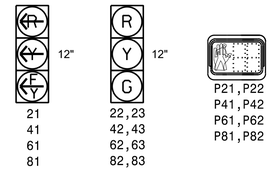
PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION			
SIGNAL FACE	PHASE 2 + 6	PHASE 4 + 8	FLASH
21	F Y	~~R~~	~~R~~
22,23	G	R	R
41	~~R~~	F Y	~~R~~
42,43	R	G	R
61	F Y	~~R~~	~~R~~
62,63	G	R	R
81	~~R~~	F Y	~~R~~
82,83	R	G	R
P21,P22	W	DW	DRK
P41,P42	DW	W	DRK
P61,P62	W	DW	DRK
P81,P82	DW	W	DRK

SIGNAL FACE I.D.

All Heads L.E.D.



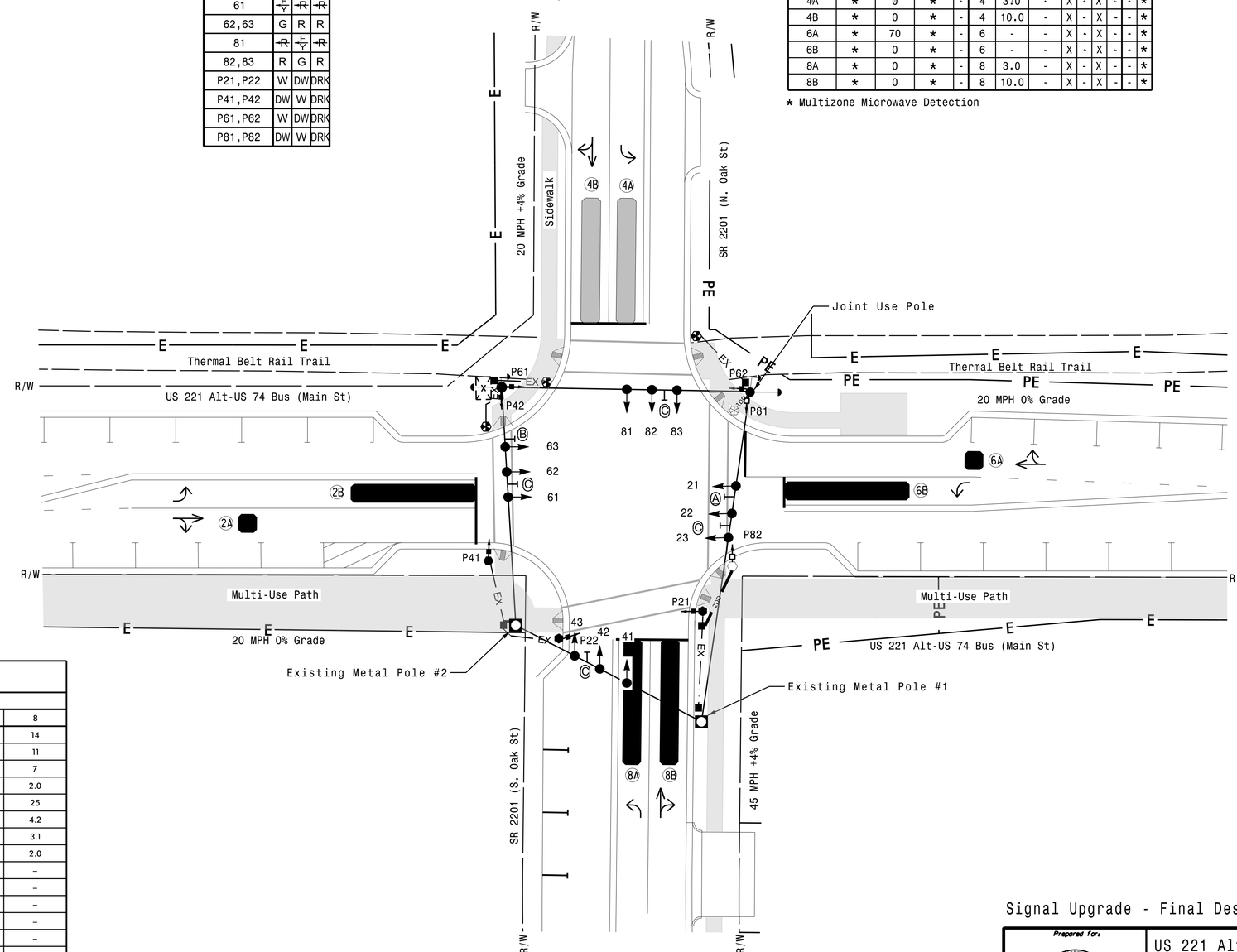
MAXTIME DETECTOR INSTALLATION CHART													
DETECTOR					PROGRAMMING								
ZONE	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN	SYSTEM LOOP	NEW CARD
2A	*	70	*	-	2	-	-	X	-	X	-	-	*
2B	*	0	*	-	2	-	-	X	-	X	-	-	*
4A	*	0	*	-	4	3.0	-	X	-	X	-	-	*
4B	*	0	*	-	4	10.0	-	X	-	X	-	-	*
6A	*	70	*	-	6	-	-	X	-	X	-	-	*
6B	*	0	*	-	6	-	-	X	-	X	-	-	*
8A	*	0	*	-	8	3.0	-	X	-	X	-	-	*
8B	*	0	*	-	8	10.0	-	X	-	X	-	-	*

* Multizone Microwave Detection

2 Phase
Fully Actuated
Isolated

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications January 2024.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Set all detector units to presence mode.
4. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
5. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
6. This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Non-Intrusive Detection Zone	
	Controller & Cabinet	
	Junction Box	
	Type I Pushbutton Post	
	Type II Signal Pedestal	
X-DD	Directional Drill	DD
X-UC	2-in Underground Conduit	UC
N/A	Right of Way	
N/A	Permanent Easement	PE
N/A	Construction Easement	E
	Directional Arrow	
N/A	Curb Ramp	
A	Left "TURNING VEHICLES" Yield "TO" Pedestrians Sign (R10-15L)	A
B	Right "TURNING VEHICLES" Yield "TO" Pedestrians Sign (R10-15R)	B
C	Street Name Sign	C

MAXTIME TIMING CHART

FEATURE	PHASE 2	PHASE 4	PHASE 6	PHASE 8
Walk *	13	12	12	14
Ped Clear	10	9	9	11
Min Green *	10	10	10	7
Passage *	3.0	2.0	3.0	2.0
Max 1 *	45	25	45	25
Yellow Change	3.0	4.2	3.0	4.2
Red Clear	3.1	3.1	3.1	3.1
Red Revert	2.0	2.0	2.0	2.0
Added Initial *	–	–	–	–
Maximum Initial *	–	–	–	–
Time Before Reduction *	–	–	–	–
Time To Reduce *	–	–	–	–
Minimum Gap	–	–	–	–
Advance Walk	6	5	5	7
Non Lock Detector	–	X	–	X
Vehicle Recall	MIN RECALL	–	MIN RECALL	–
Dual Entry	–	X	–	X

* These values may be field adjusted. Do not adjust Min Green and Passage 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 Upgrade - Final Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

HNTB NORTH CAROLINA, P.C.
4000 Center at North Hills St
Suite 500
Raleigh, North Carolina 27609
NC License No: C-1554
(919) 546-8997

Prepared for:
750 N.Greenfield Pkwy,Garner,NC 27529

US 221 Alt-US 74 Bus (Main St)
at
SR 2201 (Oak St)

Division 13 Rutherford County Spindale

PLAN DATE:	February 2026	REVIEWED BY:	N.K. Vlanich
PREPARED BY:	E.E. Tiller	REVIEWED BY:	N.R. Simmons

0 20
1"=20'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 031464 ENGINEER NATASHA R. SIMMONS

DocuSigned by: Natasha R. Simmons 5/12/2026
SIGNATURE DATE

SIG. INVENTORY NO. 13-0176