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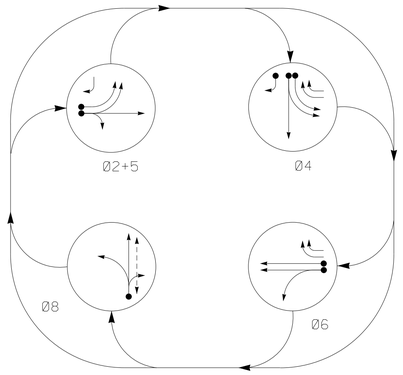
PROJECT REFERENCE NO.	SHEET NO.
R-5816	Sig.1.0

4 Phase Fully Actuated NC 58 (Atlantic Beach) CLS

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

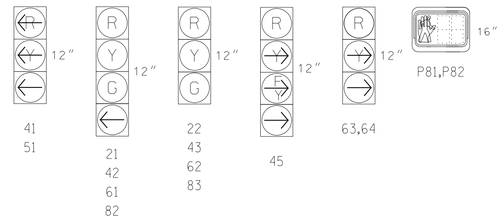
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø6	Ø2+5	Ø4	Ø8	FLASH
21,22	R	G	R	R	R
41	←R	←R	←	←R	←R
42	R	R	G ←	R	R
43	R	R	G	R	R
45	R	→	G →	R	R
51	←R	←	←R	←R	←R
61	G ←	R	R	R	R
62	G	R	R	R	R
63,64	→	R	→	R	R
82	R	R	R	G ←	R
83	R	R	R	G	R
P81,P82	DW	DW	DW	W	DRK

SIGNAL FACE I.D.

All Heads L.E.D.



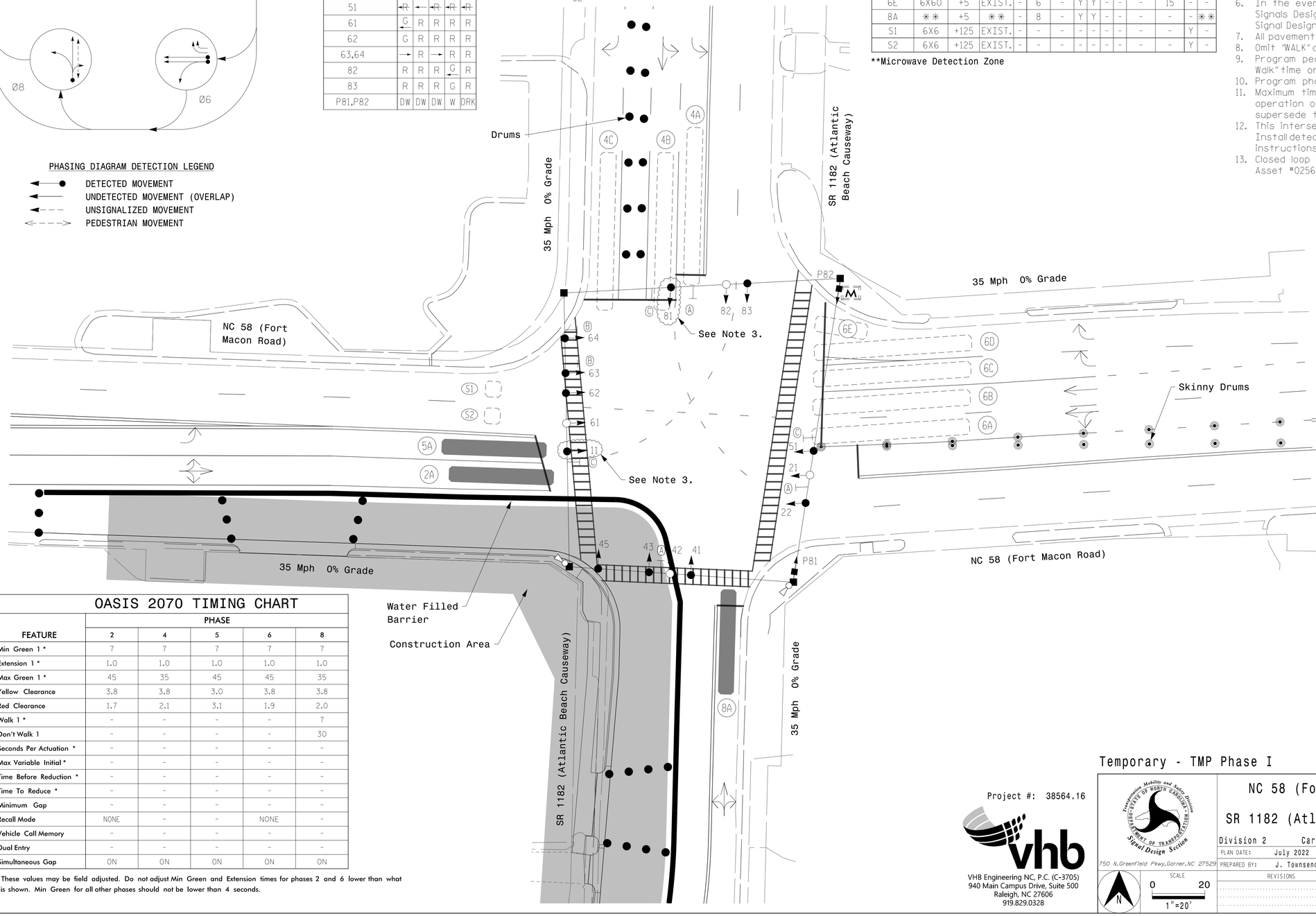
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

INDUCTIVE LOOPS					DETECTOR PROGRAMMING									
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	SWITCHING DETECTOR	CALLING	EXTENSION	FULL TIME DELAY	SWITCH PHASE	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
2A	**	+5	**	-	2	-	Y	Y	-	-	-	-	-	**
4A,4B	6X60	+5	EXIST.	-	4	-	Y	Y	-	-	-	-	-	-
4C	6X60	+5	EXIST.	-	4	-	Y	Y	-	-	-	15	-	-
5A	**	+5	**	-	5	-	Y	Y	-	-	-	-	-	**
6A,6B	6X60	+5	EXIST.	-	6	-	Y	Y	-	-	-	-	-	-
6C,6D	6X60	+5	EXIST.	-	6	-	Y	Y	-	-	-	10	-	-
6E	6X60	+5	EXIST.	-	6	-	Y	Y	-	-	-	15	-	-
8A	**	+5	**	-	8	-	Y	Y	-	-	-	-	-	**
S1	6X6	+125	EXIST.	-	-	-	-	-	-	-	-	-	Y	-
S2	6X6	+125	EXIST.	-	-	-	-	-	-	-	-	-	Y	-

**Microwave Detection Zone

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Disconnect and bag existing signal heads 11, 81, P21, P22, P41, and P42. Reposition signal heads 22, 43 and 83 as shown.
4. Remove existing Left Arrow "ONLY" Signs (R3-5L) adjacent to existing signal heads 11, 51, and 81.
5. Set all detector units to presence mode.
6. In the event of loop replacement, refer to the ITS and Signals Design Manual and submit a Plan of Record to the Signal Design Section.
7. All pavement markings are existing.
8. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
9. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
10. Program phases 2 and 5 as first phases.
11. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
12. This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
13. Closed loop system data: Master Asset #10209, Controller Asset #0256



LEGEND

PROPOSED		EXISTING
	Curb Ramp	N/A
	Traffic Signal Head	
	Sign	
	Pedestrian Signal Head	
	Metal Strain Pole	
	Inductive Loop Detector	
	Multizone Microwave Zone	
	Multizone Microwave Detector	
M	Master Controller & Cabinet	M
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
A	Street Name Sign (D3-1)	A
B	Right Arrow "ONLY" Sign (R3-5R)	B
C	Left Arrow "ONLY" Sign (R3-5L)	C

OASIS 2070 TIMING CHART

FEATURE	PHASE 2	4	5	6	8
Min Green 1 *	7	7	7	7	7
Extension 1 *	1.0	1.0	1.0	1.0	1.0
Max Green 1 *	45	35	45	45	35
Yellow Clearance	3.8	3.8	3.0	3.8	3.8
Red Clearance	1.7	2.1	3.1	1.9	2.0
Walk 1 *	-	-	-	-	7
Don't Walk 1	-	-	-	-	30
Seconds Per Actuation *	-	-	-	-	-
Max Variable Initial *	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-
Time To Reduce *	-	-	-	-	-
Minimum Gap	-	-	-	-	-
Recall Mode	NONE	-	-	NONE	-
Vehicle Call Memory	-	-	-	-	-
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.

Temporary - TMP Phase I

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Project #: 38564.16

VHB Engineering NC, P.C. (C-3705)
940 Main Campus Drive, Suite 500
Raleigh, NC 27606
919.829.0328

Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

SCALE 0 20 1"=20'

NC 58 (Fort Macon Road) at SR 1182 (Atlantic Beach Cswy)

Division 2 Carteret County Atlantic Beach

PLAN DATE:	July 2022	REVIEWED BY:	J.L. Lewis
PREPARED BY:	J. Townsend	REVIEWED BY:	M.L. Stygles

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 031533 ENGINEER JOHN G. TOWNSEND

DocuSigned by: John G. Townsend
DocuSign Envelope ID: 7013626D-DE5C-4780-B3FF-796E39060156

7/26/2022

SIGNATURE DATE

SIG. INVENTORY NO. 02-0256

7/26/2022
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User:jtownsend