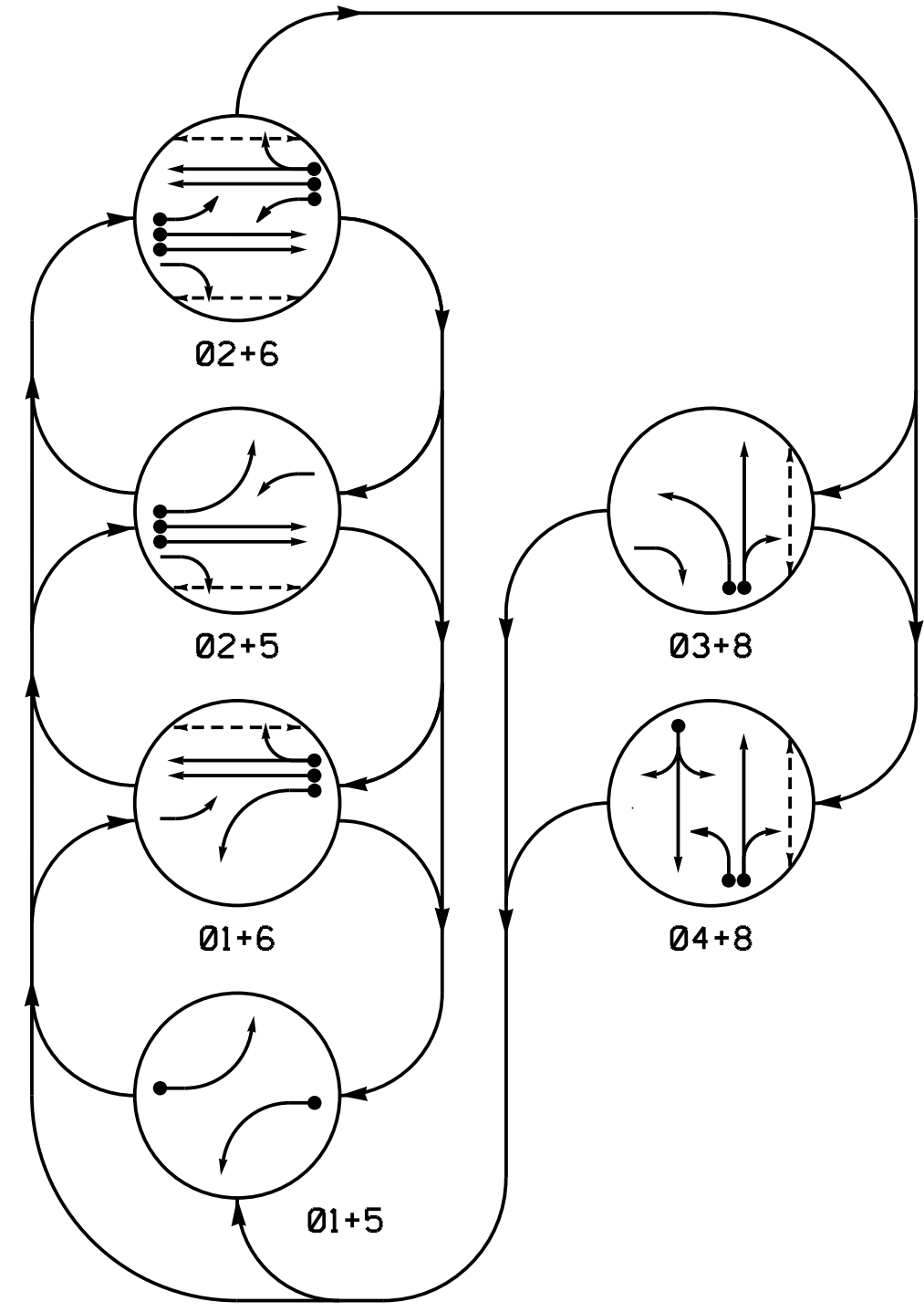


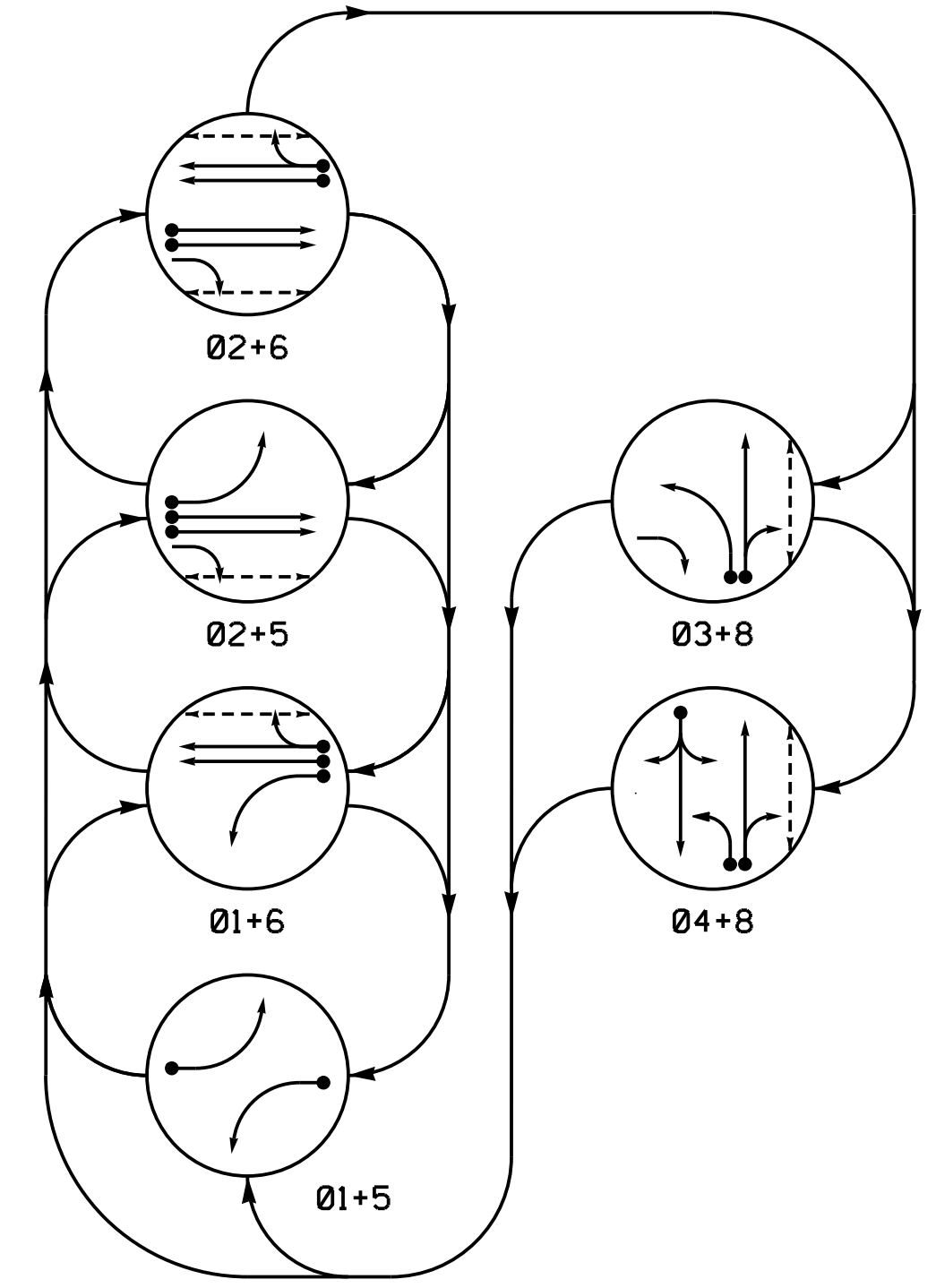
DEFAULT PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

ALTERNATE PHASING DIAGRAM



DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE							
	01+5	01+6	02+5	02+6	03+8	04+8	FLASH	F L A S H
11	—	—	F	F	R	R	Y	Y
21,22	R	R	G	G	R	R	Y	Y
23	R	R	F	F	—	—	R	Y
31	R	R	R	R	—	—	F	R
41,42	R	R	R	R	R	R	G	R
51	—	—	F	F	R	R	Y	Y
61,62	R	G	R	G	R	R	Y	Y
81,82	R	R	R	R	G	G	R	R
P21,P22	DW	DW	W	W	DW	DW	DRK	DRK
P61,P62	DW	W	DW	W	DW	DW	DRK	DRK
P81,P82	DW	DW	DW	DW	W	W	DRK	DRK

ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE							
	01+5	01+6	02+5	02+6	03+8	04+8	FLASH	F L A S H
11	—	—	R	R	R	R	Y	Y
21,22	R	R	G	G	R	R	Y	Y
23	R	R	F	F	—	—	R	Y
31	R	R	R	R	—	—	F	R
41,42	R	R	R	R	R	R	G	R
51	—	—	R	R	R	R	Y	Y
61,62	R	G	R	G	R	R	Y	Y
81,82	R	R	R	R	G	G	R	R
P21,P22	DW	DW	W	W	DW	DW	DRK	DRK
P61,P62	DW	W	DW	W	DW	DW	DRK	DRK
P81,P82	DW	DW	DW	DW	W	W	DRK	DRK

OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING							
					PHASE	CALLING	EXTENSION	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD	
1A	6X40	0	2-4-2	Y	1	Y	Y	-	-	**15	-	Y
2A/S33	6X6	300	5	Y	*6	Y	Y	-	-	3	-	Y
2B/S34	6X6	300	5	Y	2	Y	Y	-	-	-	-	Y
3A	6X40	0	2-4-2	Y	3	Y	Y	-	-	15	-	Y
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	5	-	Y
5A	6X40	0	2-4-2	Y	5	Y	Y	-	-	**15	-	Y
6A/S35	6X6	300	5	Y	*2	Y	Y	-	-	3	-	Y
6B/S36	6X6	300	5	Y	6	Y	Y	-	-	-	-	Y
8A	6X40	0	2-4-2	Y	8	Y	Y	-	-	10	-	Y

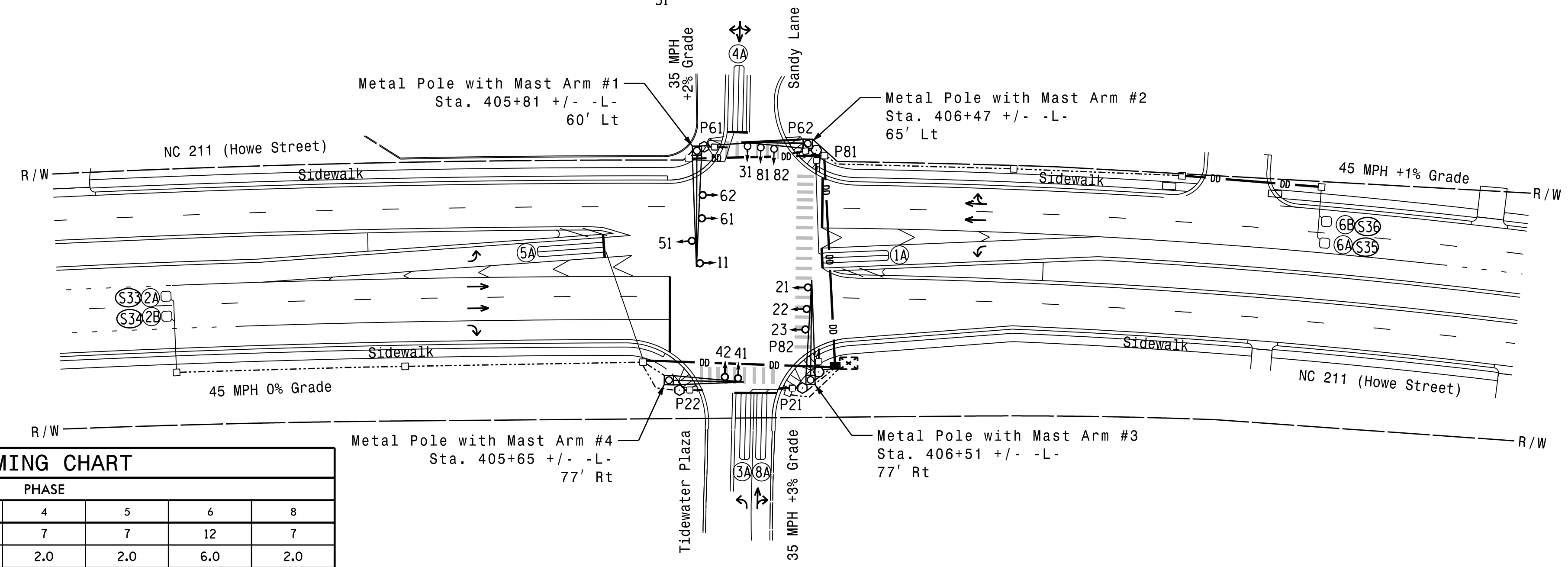
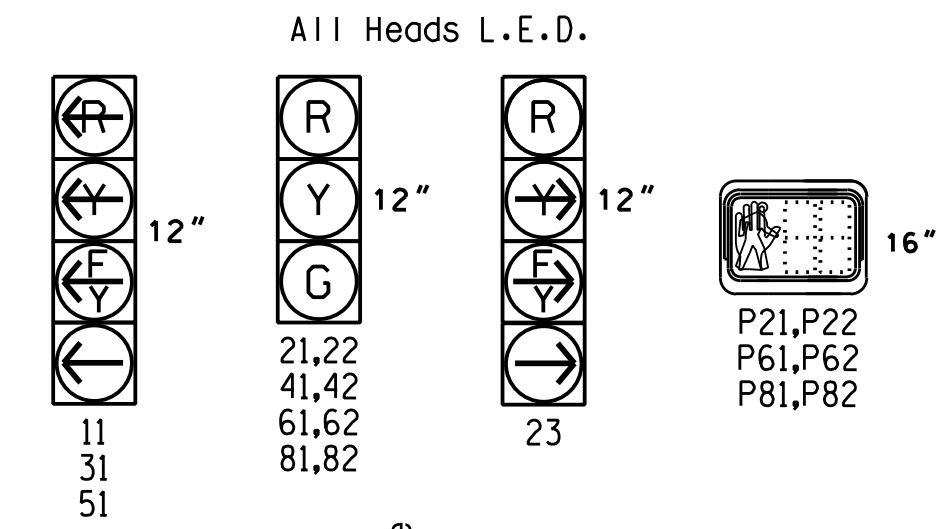
* Disable 2 and 6 call for 1A and 5A during alternate phasing operation.
 ** Reduce delay to 3 seconds during alternate phasing operation.

6 Phase Fully Actuated (NC 133 Closed Loop System)

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.
- Phase 1 and/or phase 5 may be lagged.
- Omit Phase 3 during Phase 4 on.
- Set all detector units to presence mode.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- The Division Traffic Engineer will determine the hours of use for each phasing plan.
- 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 #: 0897.

SIGNAL FACE I.D.



OASIS 2070 TIMING CHART

FEATURE	PHASE							
	1	2	3	4	5	6	8	
Min Green 1 *	7	12	7	7	7	12	7	
Extension 1 *	2.0	6.0	2.0	2.0	2.0	6.0	2.0	
Max Green 1 *	20	90	20	25	20	90	25	
Yellow Clearance	3.0	4.5	3.0	3.7	3.0	4.5	3.7	
Red Clearance	3.1	1.8	3.3	2.9	3.3	1.8	2.9	
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Walk 1 *	-	7	-	-	-	7	7	
Don't Walk 1	-	13	-	-	-	9	31	
Seconds Per Actuation *	-	1.5	-	-	-	1.5	-	
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	-	-	-	ON	-	-	ON	
Simultaneous Gap	ON	ON	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.

LEGEND

PROPOSED	EXISTING
○ → Traffic Signal Head	● → N/A
○ → Modified Signal Head	○ → N/A
□ → Pedestrian Signal Head With Push Button & Sign	□ → N/A
○ → Signal Pole with Guy	○ → N/A
○ → Signal Pole with Sidewalk Guy	○ → N/A
□ → Inductive Loop Detector	□ → N/A
□ → Controller & Cabinet	□ → N/A
□ → Junction Box	□ → N/A
□ → 2-in Underground Conduit	□ → N/A
→ → Right of Way	→ → N/A
→ → Directional Arrow	→ → N/A
→ → Directional Drill	→ → N/A
○ → Metal Pole with Mastarm	○ → N/A
○ → Type II Signal Pedestal	○ → N/A
△ → Wheelchair Ramp	△ → N/A

Signal Upgrade - Final Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

	NC 211 (Howe Street) at Tidewater Plaza/Sandy Lane		
	Division 03 Brunswick Co. Southport PLAN DATE: June 2017 PREPARED BY: A.H. Thornburg SCALE: 0 50 1"=50'	REVIEWED BY: A.D. Klinksiek REVIEWED BY: N.R. Simmons	

HNTB
 HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554
 (919) 546-8997