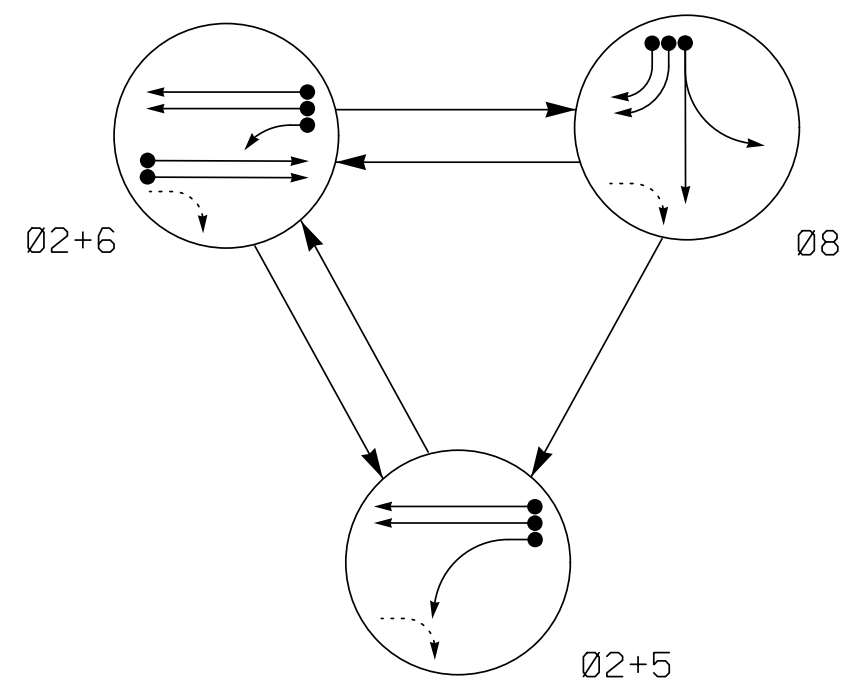


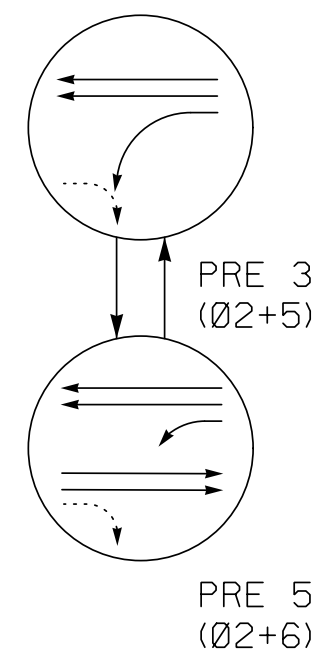
**PHASING DIAGRAM**



**PHASING DIAGRAM DETECTION LEGEND**

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

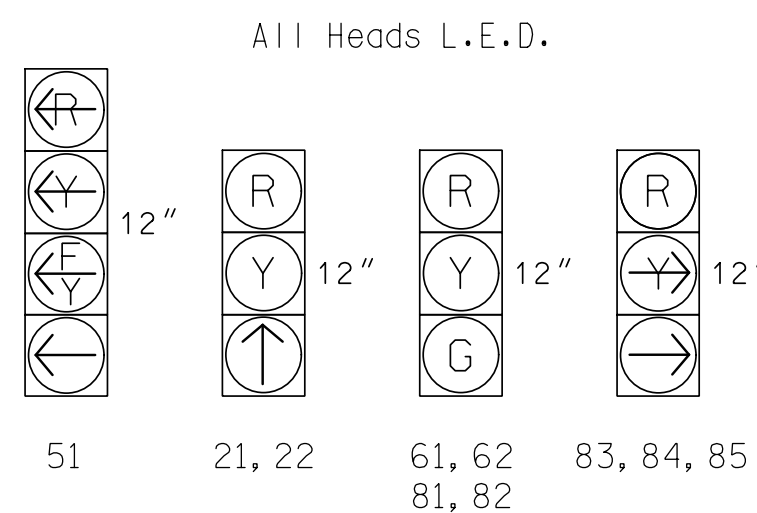
**EV PREEMPT PHASES**  
(Medium Priority)



**TABLE OF OPERATION**

SIGNAL FACE	PHASE							
	02+5	02+6	08	PRE 3	PRE 5	08	08	08
21, 22	↑	↑	R	↑	↑	Y		
51	←	←	R	←	←	Y		
61, 62	R	G	R	R	G	Y		
81, 82	R	R	G	R	R			
83, 84, 85	R	R	←	R	R			

**SIGNAL FACE I.D.**



**ASC/3 DETECTOR INSTALLATION CHART**

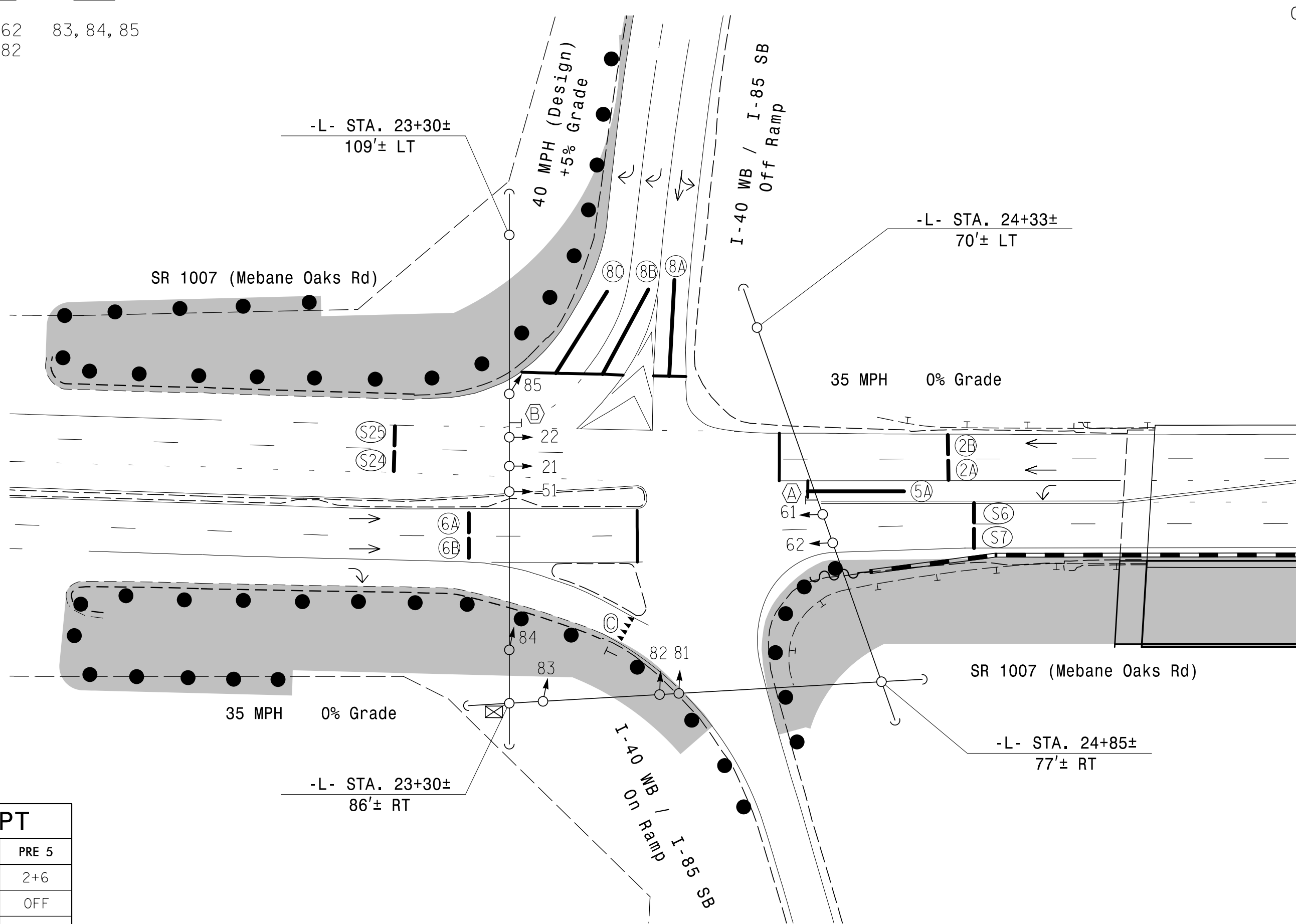
ZONE	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING							
					PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	SYSTEM LOOP	NEW CARD
2A	6x6	70	*	*	2	Yes	-	-	-	S	-	*
2B	6x6	70	*	*	2	Yes	-	-	-	S	-	*
5A	6x40	0	*	*	5	Yes	-	15	-	S	-	*
6A	6x6	70	*	*	6	Yes	-	-	-	S	-	*
6B	6x6	70	*	*	6	Yes	-	-	-	S	-	*
8A	6x40	0	*	*	8	Yes	-	-	-	S	-	*
8B	6x40	0	*	*	8	Yes	-	15	-	S	-	*
8C	6x40	0	*	*	8	Yes	-	15	-	S	-	*
S6	6X6	+140	*	*	-	No	-	-	-	N	X	*
S7	6X6	+140	*	*	-	No	-	-	-	N	X	*
S24	6X6	+160	*	*	-	No	-	-	-	N	X	*
S25	6X6	+160	*	*	-	No	-	-	-	N	X	*

\* Video Detection Zone

**3 Phase Fully Actuated w/ Emergency Vehicle Preemption SR 1007 (Mebane Oaks Rd) CLS Signal System: 10705**

**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 5 may be lagged.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Relocate the existing GPS Emergency Vehicle Preemption system.
- 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 #: 2024.



**LEGEND**

- | PROPOSED                                  | EXISTING                                  |
|---|---|
| ○ → Traffic Signal Head                   | ● → Traffic Signal Head                   |
| — Sign                                    | — Sign                                    |
| ○ Signal Pole with Guy                    | ● Signal Pole with Guy                    |
| ○ Signal Pole with Sidewalk Guy           | ● Signal Pole with Sidewalk Guy           |
| ☒ 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                       |
| ● Construction Zone Drums                 | ● Construction Zone Drums                 |
| ■ Construction Zone                       | ■ Construction Zone                       |
| ▨ Video Detection Area                    | ▨ Video Detection Area                    |
| N/A Curb Ramp                             | ▨ Curb Ramp                               |
| N/A Guardrail                             | ▨ Guardrail                               |
| (A) No U Turn / No Left Turn Sign (R3-18) | (A) No U Turn / No Left Turn Sign (R3-18) |
| (B) No Right Turn Sign (R3-1)             | (B) No Right Turn Sign (R3-1)             |
| (C) "YIELD" Sign (R1-2)                   | (C) "YIELD" Sign (R1-2)                   |

**ASC/3 TIMING CHART**

FEATURE	PHASE			
	2	5	6	8
Min Green *	10	7	10	7
Walk *	0	0	0	0
Ped Clear	0	0	0	0
Veh. Extension *	3.0	2.0	3.0	2.0
Max I *	60	25	60	35
Yellow	3.8	3.0	3.8	3.8
Red Clear	2.3	1.8	2.3	1.6
Red Revert	2.0	2.0	2.0	2.0
Actuations B4 Add *	-	-	-	-
Seconds / Actuation *	-	-	-	-
Max Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Locking Detector	X	-	X	-
Recall Position	VEH. RECALL	-	VEH. RECALL	-
Dual Entry	-	-	-	-
Simultaneous Gap	X	X	X	X

\* 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.

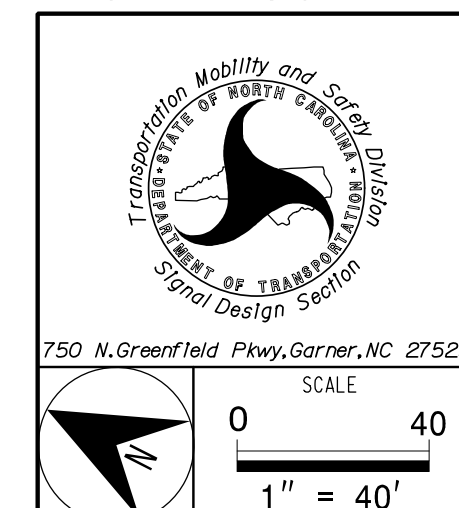
**ASC/3 EV PREEMPT**

FUNCTION	PRE 3	PRE 5
Exit Phase(s)	2+6	2+6
Preempt Override	OFF	OFF
Delay Time	0	0
Ped Clear Through Yellow	N	N
Terminate Phases	N	N
Entrance Walk	255*	255*
Entrance Ped Clear	255*	255*
Entrance Min Green	1	1
Entrance Yellow Clear	25.5*	25.5*
Entrance Red Clear	25.5*	25.5*
Min Dwell Time	7	7
Preempt Input Extension Time	2	2
Preempt Max Time	120	120
Exit Yellow Clear	25.5*	25.5*
Exit Red Clear	25.5*	25.5*

\* Time defaults to time used for phase during normal operation

(TMP Phase I)  
Signal Upgrade - Temporary Design 1

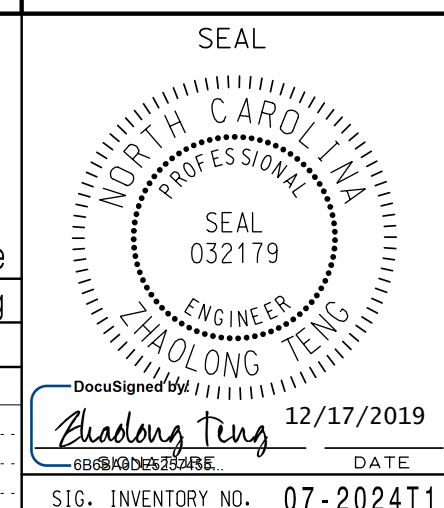
PREPARED IN THE OFFICE OF:  
**Accelerate Engineering, PLLC**  
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Cary, NC 27511  
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NC License No. P-1442



**SR 1007 (Mebane Oaks Road) at I-40 WB / I-85 SB Ramps**  
Division 7 Alamance County Mebane  
PLAN DATE: November 2019 REVIEWED BY: Z. "Gavin" Teng  
PREPARED BY: Z. "Gavin" Teng REVIEWED BY:

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



12/17/2019  
DATE  
SIG. INVENTORY NO. 07-2024T1