

05-0272 (Raleigh System) Plan of Record Transmittal

From: Baek, Chang <cbaek@ncdot.gov>
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Sent: March 2, 2020 2:46:13 PM EST

Division: 5

County

City

Sig. Inv. No.

Description

Wake

Raleigh

05-0272

US 70-401/NC 50 (South Saunders St.) at Pecan Rd./Carolina Pines Ave.

Signal Plan Only. Electrical Detail to be sent later when completed.

Signal plans for the subject location have been prepared for your office and are attached to this email. If you have any questions or concerns regarding the plan, please contact Rob Ziemba or Chang Baek at (919) 814-5000. If you have any questions opening and printing the files, please contact your Division Computer

Consultant.

Thanks,

Chang

Chang Baek, PE

Central Region Signals Project Engineer - Divisions 5, 7, 8, 9

Signal Design Section / TSMO Unit

Transportation Mobility & Safety Division

Phone #: 919-814-4932

cbaek@ncdot.gov

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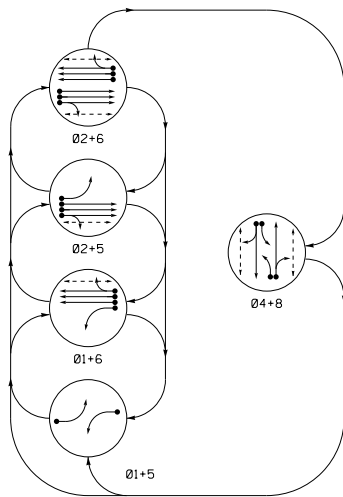
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Size: 568 KB (582,088 bytes)

PHASING DIAGRAM



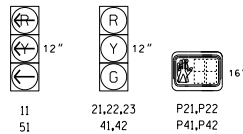
PHASING DIAGRAM DETECTION LEGEND

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

SIGNAL FACE	PHASE							
	01+5	02+5	02+6	03+5	03+6	04+8	04+9	05+1
11	—	—	—	—	—	—	—	—
21, 22, 23	R	R	G	G	R	Y		
41, 42	R	R	R	R	G	R		
51	—	—	—	—	—	—	—	—
61, 62, 63	R	G	R	G	R	Y		
81, 82	R	R	R	R	G	R		
P21,P22	DW	DW	W	W	DW	DRK		
P41,P42	DW	DW	DW	DW	W	DRK		
P61,P62	DW	W	DW	W	DW	DRK		
P81,P82	DW	DW	DW	DW	W	DRK		

SIGNAL FACE I.D.

All Heads L.E.D.



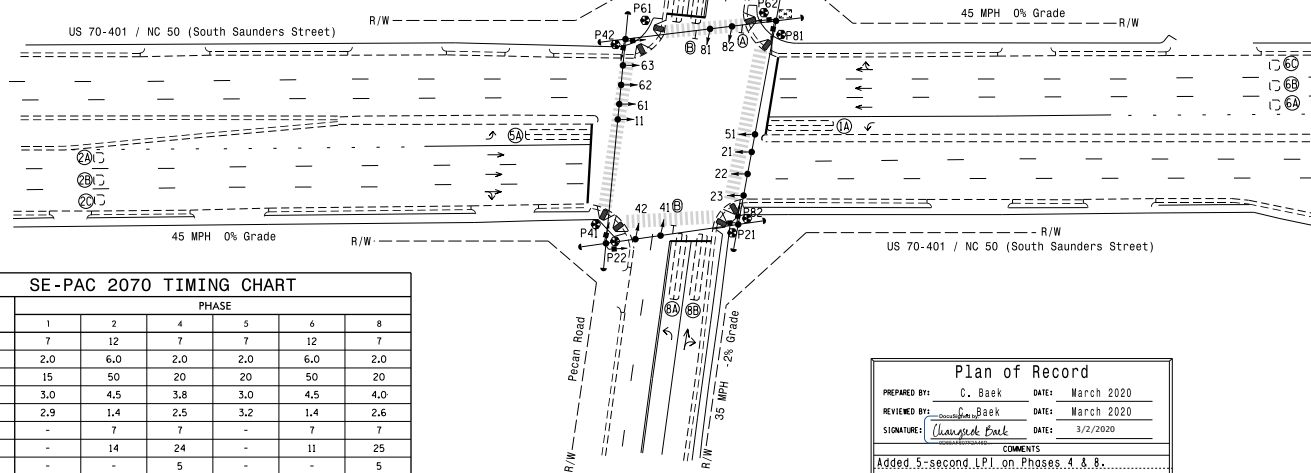
SE-PAC 2070 LOOP & DETECTOR UNIT INSTALLATION CHART

INDUCTIVE LOOPS						DETECTOR PROGRAMMING																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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5 Phase
Fully Actuated
(Raleigh Signal 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.
- 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.
- Pavement markings are existing unless otherwise shown.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



SE-PAC 2070 TIMING CHART

FEATURE	PHASE							
	1	2	4	5	6	8		
Min Green *	7	12	7	7	12	7		
Passage Gap *	2.0	6.0	2.0	2.0	6.0	2.0		
Maximum Green *	15	50	20	20	50	20		
Yellow Change	3.0	4.5	3.8	3.0	4.5	4.0		
Red Clear	2.9	1.4	2.5	3.2	1.4	2.6		
Walk *	-	7	7	-	7	7		
Pedestrian Clear	-	14	24	-	11	25		
Advance Walk *	-	-	5	-	-	5		
Added Initial *	-	1.5	-	-	1.5	-		
Maximum 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	NON-LOCK	LOCK	NON-LOCK	NON-LOCK	LOCK	NON-LOCK		
Dual Entry	-	-	ON	-	-	ON		
Simultaneous Gap	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.

Plan of Record

PREPARED BY: C. Baek DATE: March 2020
 REVIEWED BY: C. Baek DATE: March 2020
 SIGNATURE: *Changyeok Baek* DATE: 3/2/2020
 COMMENTS:
 Added 5-second LPI on Phases 4 & 8.
 This plan of record reflects existing field conditions as submitted by field personnel. This plan may have been modified from its original state.

PROPOSED	LEGEND	EXISTING
○	Traffic Signal Head	●
○	Modified Signal Head	N/A
○	Sign	○
○	Pedestrian Signal Head	○
○	With Push Button & Sign	○
○	Signal Pole with Guy	○
○	Signal Pole with Sidewalk Guy	○
○	Inductive Loop Detector	○
○	Controller & Cabinet	○
○	Junction Box	○
○	2-in Underground Conduit	○
○	Right of Way	○
○	Directional Arrow	○
○	Type I Pushbutton Post	○
○	Curb Ramp	○
○	Combined Through and Right Arrow Sign (R3-6R)	○
○	Left Arrow "ONLY" Sign (R3-5L)	○

Plan of Record

Prepared in the Office of:
 US 70-401/NC 50
 (South Saunders Street)
 at
 Pecan Rd./Carolina Pines Ave.
 Division 5 Wake County Raleigh
 PLAN DATE: October 2014 REVIEWED BY: Jeff Spence
 PREPARED BY: Jeff Spence
 SCALE: 1"=40'
 SIGNATURE: *Jeff Spence* DATE: 12/4/2014
 This document shall not be considered a certified document.
 Not a certified document. This document originally issued and sealed by R.W. Hough, PE #036833 on 12/4/2014.
 SIG. INVENTORY NO. 05-0272