



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

June 2, 2023

ADDENDUM #1

MEMO TO: Plan Holders

FROM: Jennifer A. Sour
Division Proposal Engineer

DocuSigned by:

Jennifer A. Sour

B213233052CA46B...

CONTRACT ID: DG00582
WBS ELEMENT NO.: 40325.3.59
FEDERAL AID NO.: STPRR-0708(41)
TIP NO.: Y-4807B
COUNTY: GUILFORD
LOCATION: RAILWAY-HIGHWAY CROSSING CLOSURE AT PINE ST
(NON-SYSTEM) AND NC RR CROSSING 722 957 L & 722
958T IN GREENSBORO
TYPE OF WORK: GRADING, DRAINAGE, PAVING, PROPOSED RAIL
CROSSING, RAIL CROSSING CLOSURE ON PINE ST
(NONSYSTEM; CROSSING 722 957L) AND ON
LOWDERMILK ST (NON-SYSTEM; CROSSING 722 958T)

To whom it may concern:

It was recently discovered that the spec metal strain poles should be standard metal strain poles. Please replace sheet Sig 2.0 with the attached plan sheet.

You will also need to update the ebx file and replace it with DG00582.001x.

If you have any questions, please feel free to contact me at (336) 487-0075. Thank you.

JAS

ec: Website

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS DIVISION 7
PO BOX 14996
GREENSBORO, NC 27415-4996

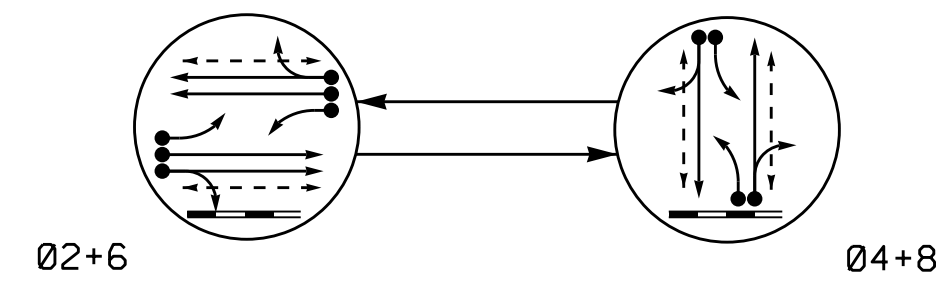
Telephone: (336) 487-0075
Fax: (336) 334-3637
Customer Service: 1-877-368-4968

Location:
1584 YANCEYVILLE STREET
GREENSBORO, NC 27405

Website: ncdot.gov

2 Phase Fully Actuated With Railroad Preemption (Greensboro Signal System)

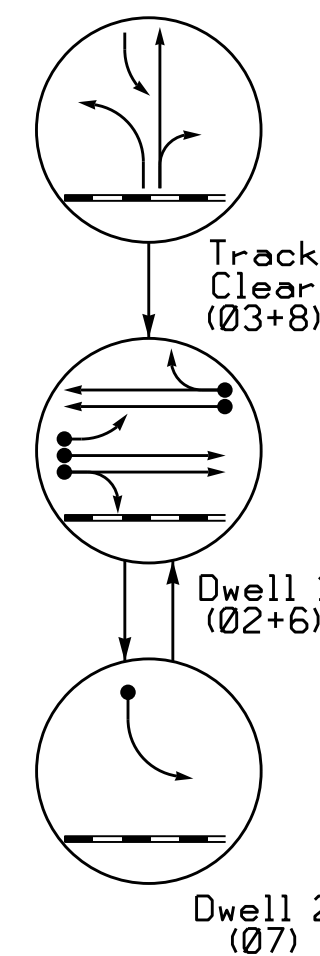
PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

- ←●→ DETECTED MOVEMENT
- ←○→ UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- ←- - -> PEDESTRIAN MOVEMENT

RAIL PREEMPT PHASES (High Priority)



SIGNAL FACE	PHASE							
	02+6	04+8	03+8	07	03+8	07	03+8	07
21	Y	R	R	G	G	Y		
22, 23	G	R	R	G	G	Y		
31	R	Y	R	R	R	R		
41, 42	R	G	R	R	R	R		
61	Y	R	R	R	R	Y		
62, 63	G	R	R	G	G	Y		
71	R	Y	Y	R	R	R		
81, 82	R	G	G	R	R	R		
P21, P22	W	DW	DW	DW	DW	DRK		
P41, P42	DW	W	DW	DW	DW	DRK		
P61, P62	W	DW	DW	DW	DW	DRK		
P81, P82	DW	W	DW	DW	DW	DRK		

LOOP & DETECTOR UNIT INSTALLATION CHART													
TRAFFICWARE APOGEE SOFTWARE 2070 CONTROLLER													
INDUCTIVE LOOPS					DETECTOR PROGRAMMING								
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	SWITCH (PHASE)	DELAY TIME	STRETCH TIME	CALLING	EXTENSION	ADDED INIT.	LOOP SYSTEM	NEW CARD
2A	6X6	70	4	X	2	-	-	-	X	X	X	-	X
2B	6X6	70	4	X	2	-	-	-	X	X	X	-	X
2C	6X40	0	2-4-2	X	2	-	-	-	X	X	-	-	X
4A	6X40	0	2-4-2	X	4/7	-	3	-	X	X	-	-	X
4B	6X40	0	2-4-2	X	4	-	10	-	X	X	-	-	X
6A	6X6	70	4	X	6	-	-	-	X	X	X	-	X
6B	6X6	70	4	X	6	-	-	-	X	X	X	-	X
6C	6X40	0	2-4-2	X	6	-	-	-	X	X	-	-	X
8A	6X40	0	2-4-2	X	8	-	-	-	X	X	-	-	X
8B	6X40	0	2-4-2	X	8	-	10	-	X	X	-	-	X

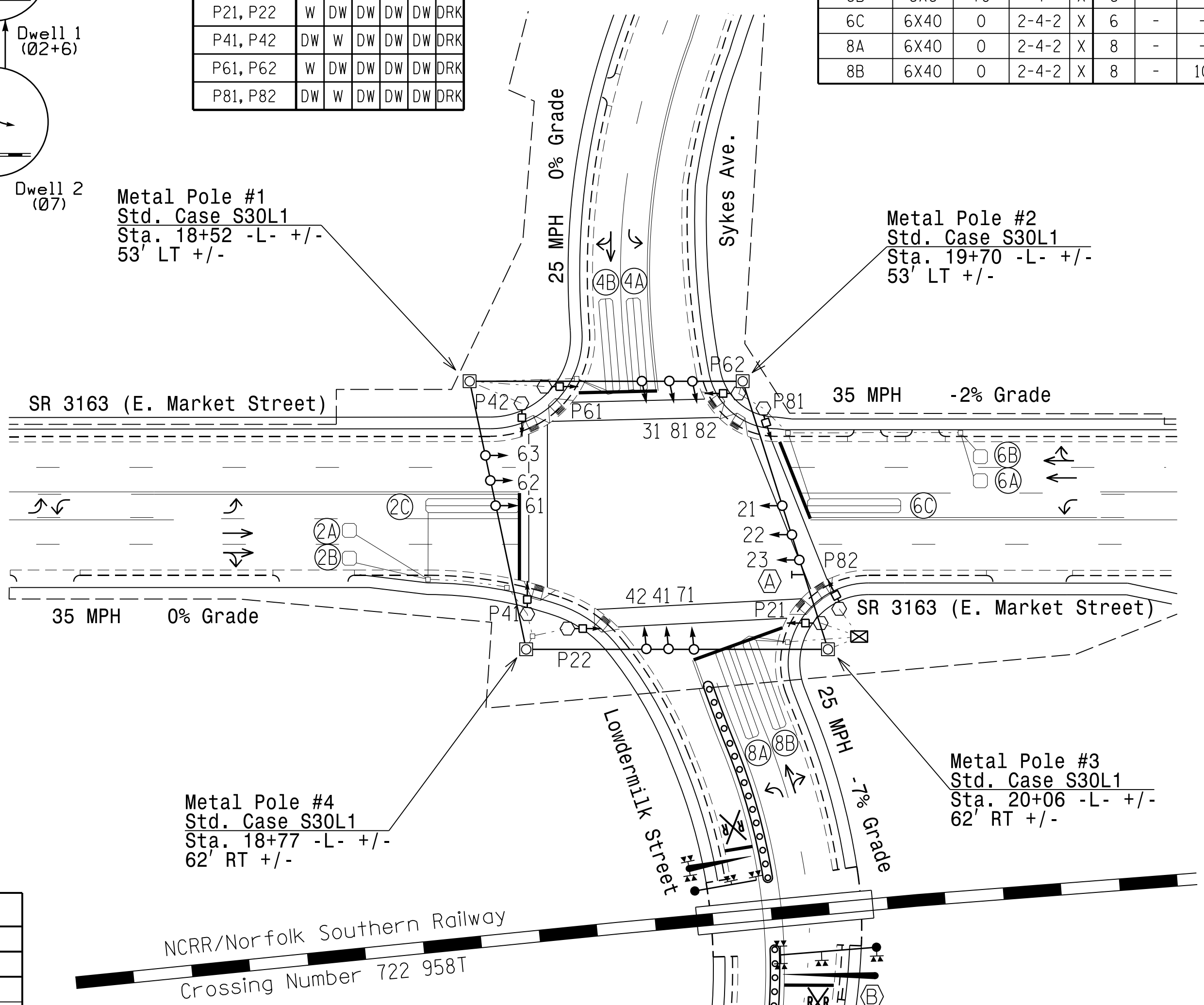
Function	PRE 1
Delay Before Preempt	0
Minimum Duration	10
Min Green Before Preempt	1
Min Walk Before Preempt	1
Ped Clear Before Preempt	5
Track Clearance Green	28
Minimum Dwell	0
Exit Ped Clear	0
Exit Yellow Change	25.5*
Exit Red Clear	25.5*
Enter Yellow Change	4.9
Enter Red Clear	2.9
Track Yellow Change	3.6
Track Red Clear	2.9
All-Red B4 Dwell	OFF
Lock Input	ON
Override Higher # Preempt	ON
Exit Preempt To	4+8

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

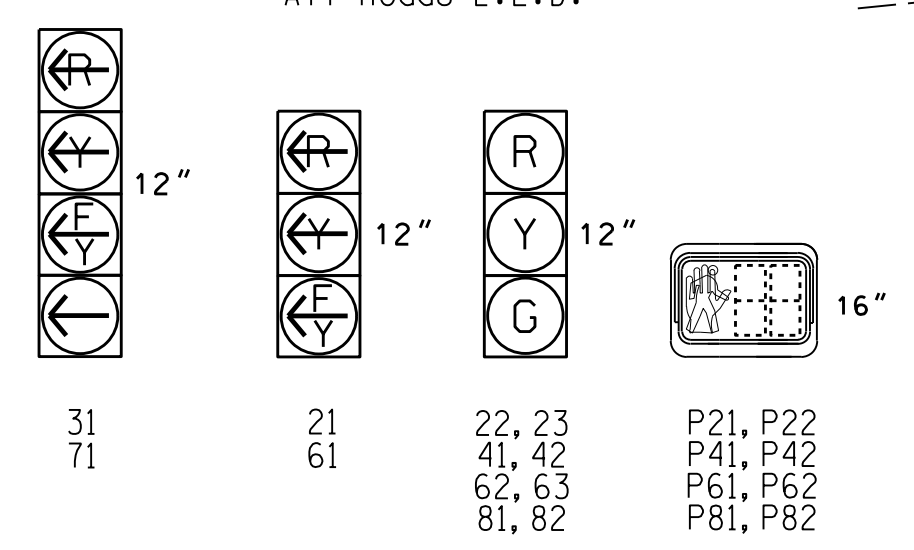
This signal was designed for advanced preemption.

FEATURE	PHASE				
	2	4	6	7	8
Min Green *	10	7	10	7	7
Gap, Extension *	3.0	2.0	3.0	2.0	2.0
Maximum Green 1 *	45	15	45	15	15
Maximum Green 2 *	60	30	60	20	30
Yellow Clear	4.0	3.6	4.0	3.0	3.6
Red Clear	2.4	2.9	2.4	3.1	2.9
Walk *	7	7	7	-	7
Pedestrian Clear	21	17	16	-	17
Added Initial *	-	-	-	-	-
Maximum Initial *	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-
Time To Reduce *	-	-	-	-	-
Minimum Gap	-	-	-	-	-
Recall Mode	MIN RECALL	-	MIN RECALL	-	-
Lock Calls	YES	-	YES	-	-
Dual Entry	-	ON	-	-	ON
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.



SIGNAL FACE I.D.



- NOTES
- Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
 - This location contains railroad preemption phasing. Do not program signal for late night flashing operation.
 - Set all detector units to presence mode.
 - Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
 - Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
 - Program pedestrian heads to countdown the flashing "Don't Walk" time only.
 - Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

LEGEND	
PROPOSED	EXISTING
○→ Traffic Signal Head	●→ Traffic Signal Head
○→ Modified Signal Head	N/A
○→ Sign	N/A
○→ Pedestrian Signal Head With Push Button & Sign	○→ Pedestrian Signal Head
○→ Signal Pole with Guy	○→ Signal Pole with Guy
○→ Signal Pole with Sidewalk Guy	○→ Signal Pole with Sidewalk Guy
○→ Inductive Loop Detector	○→ Inductive Loop Detector
○→ Controller & Cabinet	○→ Controller & Cabinet
○→ Junction Box	○→ Junction Box
○→ 2-in Underground Conduit	○→ 2-in Underground Conduit
N/A	○→ Right of Way
○→ Directional Arrow	○→ Directional Arrow
○→ Type II Signal Pedestal	○→ Type II Signal Pedestal
N/A	○→ Railroad Cantilever
N/A	○→ Railroad Gate and Flasher
N/A	○→ Railroad Tracks
○→ "NO RIGHT TURN - TRAIN" L.E.D. Blankout Sign	○→ "NO RIGHT TURN - TRAIN" L.E.D. Blankout Sign
○→ "DO NOT STOP ON TRACKS" Sign (R8-8)	○→ "DO NOT STOP ON TRACKS" Sign (R8-8)

New Installation

Prepared in the Offices of:

 TRANSPORTATION MOBILITY AND SAFETY SOLUTIONS, INC.
 STATE OF CAROLINA
 Signal Design Section

SR 3163 (E. Market Street) at Sykes Ave. & Lowermilk Street

Division 7 Guilford County Greensboro

PLAN DATE: October 2020 REVIEWED BY:

PREPARED BY: I. O. Umozurike REVIEWED BY:

REVISIONS

NO.	INIT.	DATE

SCALE: 1" = 40'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
 I. O. Umozurike
 PROFESSIONAL ENGINEER
 No. 026486
 State of North Carolina
 2/26/2021

SIG. INVENTORY NO. 07-0424

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