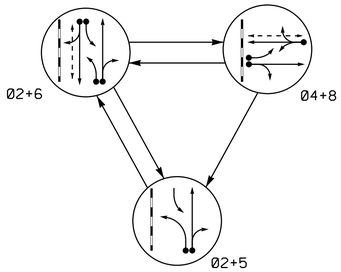
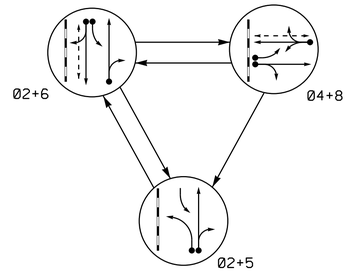
PROJECT REFERENCE NO.	SHEET NO.
W-5601BA	Sig. 1.0

DEFAULT PHASING DIAGRAM

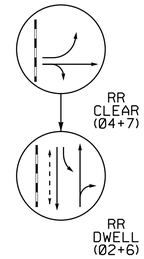


ALTERNATE PHASING DIAGRAM



RAIL PREEMPT PHASES

(High Priority)



DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2+5	Ø2+6	Ø4+8	TRACK CLEAR	DWELL	FLASH
21, 22	G	G	R	R	G	Y
41, 42	R	R	G	G	R	R
51	—	F Y	R	R	R	Y
61, 62	R	G	R	R	G	Y
63	F Y	F Y	R	R	F Y	Y
71	R	R	F Y	—	R	R
81, 82	R	R	G	R	R	R
P61, P62	DW	W	DW	DW	W	DRK
P81, P82	DW	DW	W	DW	DW	DRK
SIGN A	OFF	OFF	OFF	ON	ON	*

* See Note 12

ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2+5	Ø2+6	Ø4+8	TRACK CLEAR	DWELL	FLASH
21, 22	G	G	R	R	G	Y
41, 42	R	R	G	G	R	R
51	—	R	R	R	R	Y
61, 62	R	G	R	R	G	Y
63	F Y	F Y	R	R	F Y	Y
71	R	R	F Y	—	R	R
81, 82	R	R	G	R	R	R
P61, P62	DW	W	DW	DW	W	DRK
P81, P82	DW	DW	W	DW	DW	DRK
SIGN A	OFF	OFF	OFF	ON	ON	*

* See Note 12

PHASING DIAGRAM DETECTION LEGEND

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

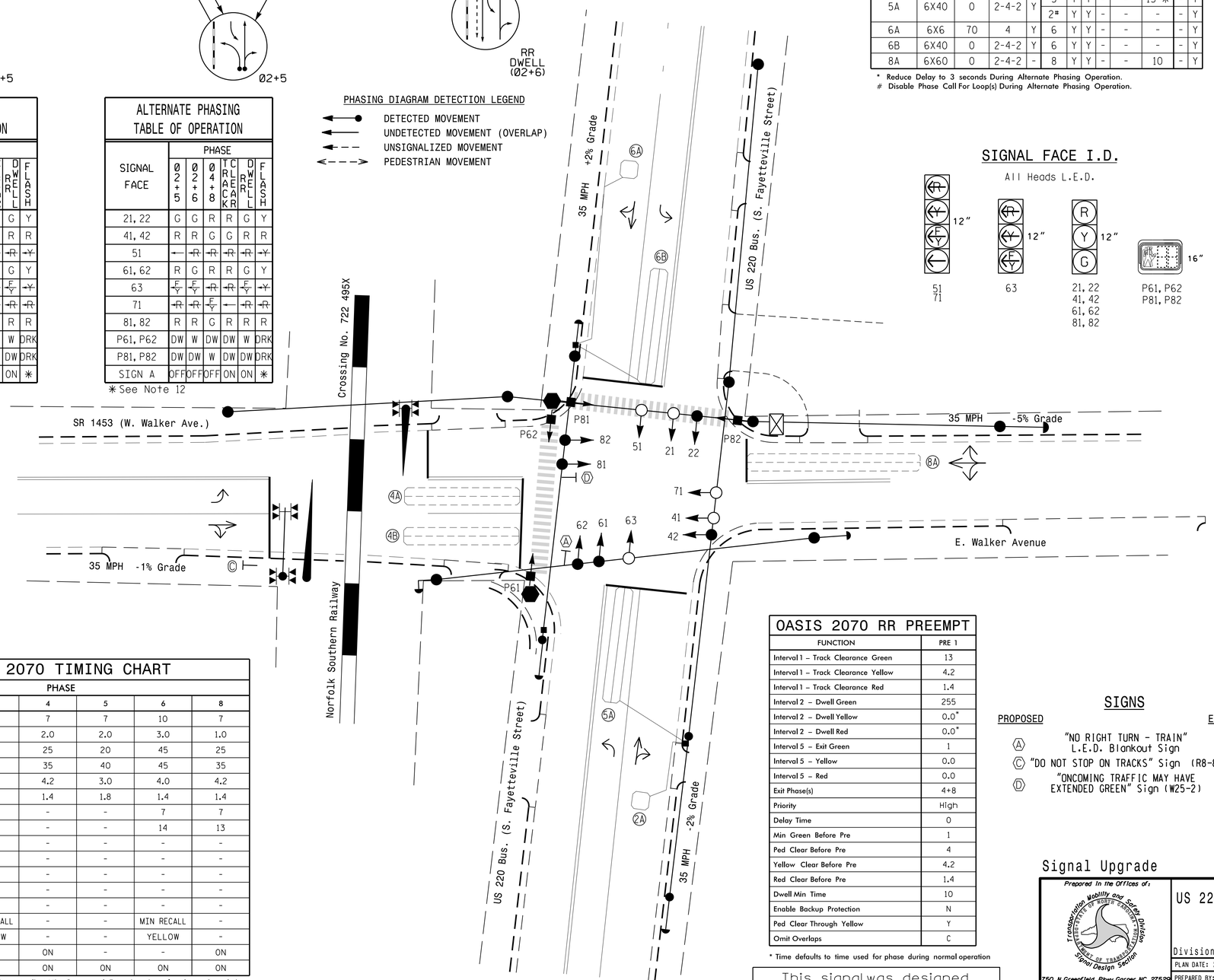
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
2A	6X6	70	4	Y	2	Y	Y	-	-	-	-	Y
4A	6X40	0	2-4-2	-	4	Y	Y	-	-	3	-	Y
4B	6X40	0	2-4-2	-	4	Y	Y	-	-	10	-	Y
5A	6X40	0	2-4-2	Y	5	Y	Y	-	-	15 *	-	Y
					2#	Y	Y	-	-	-	-	Y
6A	6X6	70	4	Y	6	Y	Y	-	-	-	-	Y
6B	6X40	0	2-4-2	Y	6	Y	Y	-	-	-	-	Y
8A	6X60	0	2-4-2	-	8	Y	Y	-	-	10	-	Y

* Reduce Delay to 3 seconds During Alternate Phasing Operation.
\# Disable Phase Call For Loop(s) During Alternate Phasing Operation.

SIGNAL FACE I.D.

All Heads L.E.D.



OASIS 2070 TIMING CHART

FEATURE	PHASE 2	4	5	6	8
Min Green 1 *	10	7	7	10	7
Extension 1 *	3.0	2.0	2.0	3.0	1.0
Max Green 1 *	45	25	20	45	25
Max Green 2 *	45	35	40	45	35
Yellow Clearance	4.0	4.2	3.0	4.0	4.2
Red Clearance	1.4	1.4	1.8	1.4	1.4
Walk 1 *	-	-	-	7	7
Don't Walk 1	-	-	-	14	13
Seconds Per Actuation *	-	-	-	-	-
Max Variable Initial *	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-
Time To Reduction *	-	-	-	-	-
Minimum Gap	-	-	-	-	-
Recall Mode	MIN RECALL	-	-	MIN RECALL	-
Vehicle Call Memory	YELLOW	-	-	YELLOW	-
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.

OASIS 2070 RR PREEMPT

FUNCTION	PRE 1
Interval 1 – Track Clearance Green	13
Interval 1 – Track Clearance Yellow	4.2
Interval 1 – Track Clearance Red	1.4
Interval 2 – Dwell Green	255
Interval 2 – Dwell Yellow	0.0*
Interval 2 – Dwell Red	0.0*
Interval 5 – Exit Green	1
Interval 5 – Yellow	0.0
Interval 5 – Red	0.0
Exit Phase(s)	4+8
Priority	High
Delay Time	0
Min Green Before Pre	1
Ped Clear Before Pre	4
Yellow Clear Before Pre	4.2
Red Clear Before Pre	1.4
Dwell Min Time	10
Enable Backup Protection	N
Ped Clear Through Yellow	Y
Omit Overlaps	C

* Time defaults to time used for phase during normal operation

This signal was designed for simultaneous preemption.

3 Phase Fully Actuated w/ Railroad Preemption (Walker Ave. TBS)

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
2. This location contains railroad preemption phasing. Do not program signal for late night flashing operation.
3. Reposition existing signal heads numbered 22, 42, 61, and 62.
4. Phase 5 may be lagged.
5. Set all detector units to presence mode.
6. In the event of loop replacement, refer to the current ITS and Signals Design Manual and submit a Plan of Record to the Signal Design Section.
7. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
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. Remove existing "LEFT TURN YIELD ON GREEN" ball signs (R10-12).
11. Pavement markings are existing unless otherwise shown.
12. Ensure flashing operation does not alter operation of blankout signs.
13. The Division Traffic Engineer will determine the hours of use for each phasing plan.
14. 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	
	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	
N/A	Right of Way	
	Directional Arrow	
N/A	Railroad Cantilever	
N/A	Railroad Gate and Flasher	
N/A	Railroad Tracks	
	Type II Signal Pedestal	

SIGNS

PROPOSED		EXISTING
A	"NO RIGHT TURN - TRAIN" L.E.D. Blankout Sign	A
C	"DO NOT STOP ON TRACKS" Sign (R8-8)	C
D	"ONCOMING TRAFFIC MAY HAVE EXTENDED GREEN" Sign (W25-2)	D

Signal Upgrade

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared In the Offices of:
Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

US 220 Bus. (S. Fayetteville St.) at SR 1453 (Walker Avenue)

Division 8 Randolph County Asheboro

PLAN DATE: September 2017 REVIEWED BY:
PREPARED BY: R.J. Ziemba REVIEWED BY:

SCALE 0 20 1"=20'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 026486 ENGINEER ROBERT J. ZIEMBA

DocuSigned by: 1999A SIGNATURE 9/20/2017 DATE

SIG. INVENTORY NO. 08-0117

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