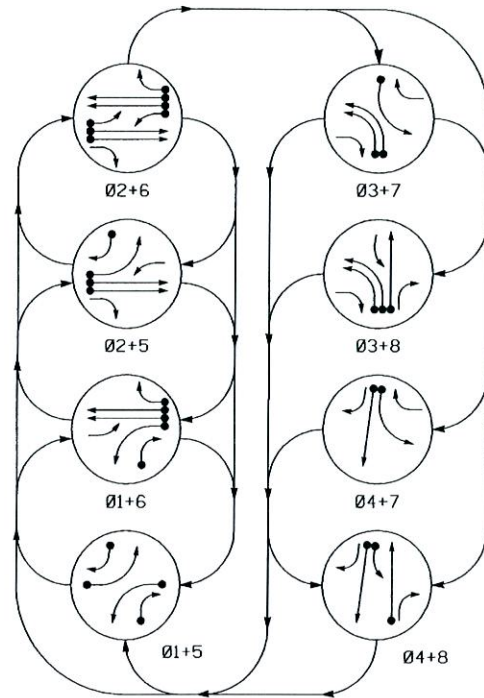


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

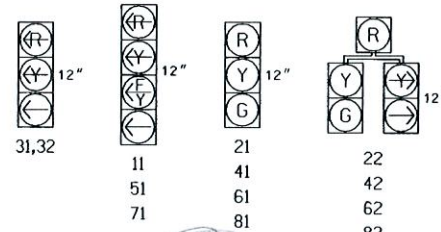
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE							
	Ø 1+5	Ø 2+6	Ø 3+7	Ø 4+8	Ø 1+6	Ø 2+5	Ø 3+8	Ø 4+7
11	←	←	←	←	←	←	←	←
21	←	←	←	←	←	←	←	←
22	←	←	←	←	←	←	←	←
31,32	←	←	←	←	←	←	←	←
41	←	←	←	←	←	←	←	←
42	←	←	←	←	←	←	←	←
51	←	←	←	←	←	←	←	←
61	←	←	←	←	←	←	←	←
62	←	←	←	←	←	←	←	←
71	←	←	←	←	←	←	←	←
81	←	←	←	←	←	←	←	←
82	←	←	←	←	←	←	←	←

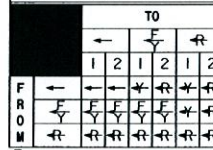
← = Flashing Yellow Arrow

SIGNAL FACE I.D.

All Heads L.E.D.



STANDARD SIGNAL FACE CLEARANCES FOR FLASHING LEFT TURN SIGNAL



← = Flashing Yellow Arrow

2070L LOOP & DETECTOR INSTALLATION

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING				STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
					PHASE	CALLING	EXTENSION	FULL TIME DELAY				
1A	6x40	0	2-4-2	Y	1	Y	Y	-	15	-	-	-
1B	6x40	0	Existing	-	1	Y	Y	-	15	-	-	-
2A	6x6	300	6	Y	2	Y	Y	-	-	-	-	-
2B	6x6	300	6	Y	2	Y	Y	-	-	-	-	-
3A	6x40	0	Existing	-	3	Y	Y	-	3	-	-	-
3B	6x40	0	Existing	-	3	Y	Y	-	-	-	-	-
4A*	6x40	0	2-4-2	Y	4	Y	Y	-	-	-	-	-
5A	6x40	0	2-4-2	Y	5	Y	Y	-	15	-	-	-
5B	6x40	0	Existing	-	5	Y	Y	-	15	-	-	-
6A	6x6	300	5	Y	6	Y	Y	-	-	-	-	-
6B	6x6	300	5	Y	6	Y	Y	-	-	-	-	-
7A	6x40	+5	Existing	-	7	Y	Y	-	15	-	-	-
8A	6x40	0	Existing	-	8	Y	Y	-	-	-	-	-
S1	6x6	150	4	Y	-	-	-	-	-	-	Y	-
S2	6x6	300	6	Y	-	-	-	-	-	-	Y	-
S3*	6x6	200	5	Y	-	-	-	-	-	-	Y	-
S4*	6x6	200	3	Y	-	-	-	-	-	-	Y	-
S5	6x6	50	4	Y	-	-	-	-	-	-	Y	-
S6	6x6	300	5	Y	-	-	-	-	-	-	Y	-

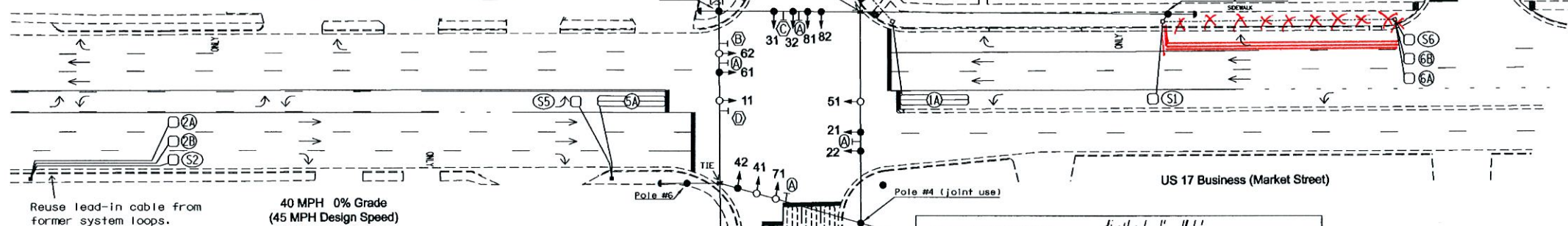
* See note #8.

8 Phase Fully Actuated (Wilmington Signal System)

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated July 2006, "Standard Specifications for Roads and Structures" dated July 2006, and all applicable sections of the latest version of the generic Project Special Provisions. The PSP can be accessed at the following website: <http://www.ncdot.org/doh/preconstruct/traffic/its/>
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Disable Backup Protect for phase 2 and the Dynamic/Backup Control Function for phase 4 (see Electrical Details).
- Phase 1 or phase 5 may be lagged.
- Phase 3 or phase 7 may be lagged.
- Set all detector units to presence mode.
- 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.
- Loops 4A, S3, and S4 are to be installed by others.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Signal system data: Controller asset #: 0049.

US 17 Business (Market Street)



Reuse lead-in cable from former system loops.

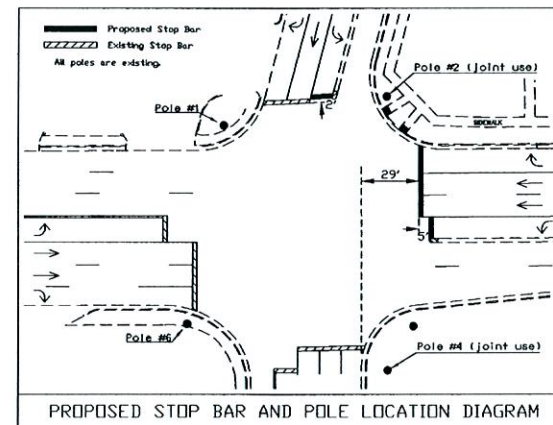
40 MPH 0% Grade (45 MPH Design Speed)

US 17 Business (Market Street)

2070L TIMING CHART

FEATURE	PHASE							
	1	2	3	4	5	6	7	8
Min Green 1 *	7	12	7	7	7	12	7	7
Extension 1 *	2.0	5.0	1.0	1.0	1.0	4.5	2.0	1.0
Max Green 1 *	30	60	25	35	30	60	25	35
Yellow Clearance	3.0	4.5	3.0	4.5	3.0	4.5	3.0	4.5
Red Clearance	3.1	1.7	3.1	2.0	3.2	1.7	2.8	2.0
Walk 1 *	-	-	-	-	-	-	-	-
Don't Walk 1	-	-	-	-	-	-	-	-
Seconds Per Actuation *	-	1.5	-	-	-	1.5	-	-
Max Variable Initial *	-	28	-	-	-	26	-	-
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
Simultaneous Gap	ON	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.



PROPOSED STOP BAR AND POLE LOCATION DIAGRAM

LEGEND		EXISTING
PROPOSED	Traffic Signal Head	N/A
	Modified Signal Head	N/A
	Sign	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	R/W
	Directional Arrow	→
	Street Name Sign	(A)
	Right Arrow "ONLY" Sign (R3-5R)	N/A
	No U-Turn Sign (R3-4)	N/A
	"U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	N/A

NC Dept of Transportation Division of Highways

Final Drawing Date 5/31/11

Prepared By: R. Hinchman

Reviewed By: Innocent Umazwike

Signal Upgrade

Project #: 09-225



DAVENPORT
TRANSPORTATION CONSULTING
HOME OFFICE:
305 WEST FOURTH STREET, SUITE 2A
WINSTON-SALEM, NC 27101
336.744.1836
www.davenportconsulting.com
NCELS FIRM LICENSE NO. C-2522



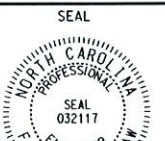
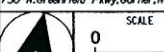
US 17 Bus. (Market Street)
at
SR 1175 (Kerr Avenue)

Division 3 New Hanover County Wilmington

PLAN DATE: May 2011 REVIEWED BY:

PREPARED BY: R. Hinchman REVIEWED BY:

REVISIONS: INIT. DATE



5/19/11

SIGNATURE DATE

SIG. INVENTORY NO. 03-0049

AS-BUILT
3/1/2012