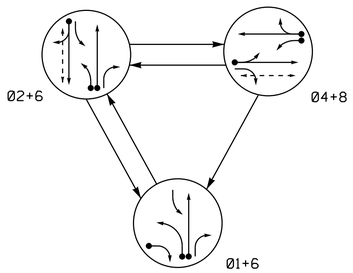
PROJECT REFERENCE NO.	SHEET NO.
B-5121/B-5317	Sig. 4.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

SIGNAL FACE	PHASE 01+6	PHASE 02+6	PHASE 04+8	PHASE FLASH
11	←	~~F Y~~	~~R~~	~~Y~~
21, 22, 24	R	G	R	Y
23	~~F Y~~	~~F Y~~	~~R~~	~~Y~~
41, 42	R	R	G	R
61, 62	G	G	R	Y
81	R	R	G	R
82	~~R~~ / ←	R	G	R
P21, P22	DW	W	DW	DRK
P81, P82	DW	DW	W	DRK

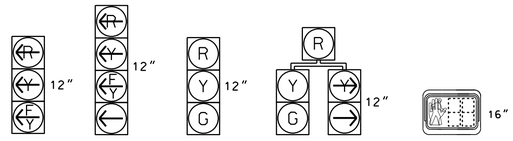
W - Walk
DW - Don't Walk
DRK - Dark

SE-PAC 2070 LOOP & DETECTOR UNIT INSTALLATION CHART

INDUCTIVE LOOPS						DETECTOR PROGRAMMING																				
									OPERATION MODE														STATUS	
LOOP NO.	SIZE (ft)	TURNS	DIST. FROM STOPBAR (ft)	NEW	EXISTING	ASSIGNED PHASE	TIMING DELAY	TIMING EXTEND (STRETCH)	0 VEHICLE	1 PEDESTRIAN	2 1 CALL	3 STOP A	4 STOP B	5 PROTPER LEFT	6 PROTPER THROUGH	7 AND	SWITCH	SYSTEM LOOPS	NEW	EXISTING
1A	6X40	2-4-2	0	X	-	1	15 SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	X
						6	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	X
1B	6X40	2-4-2	0	-	X	1	15 SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	X
2A	6X6	4	70	-	X	2	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	X
4A	6X40	2-4-2	0	-	X	4	3 SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	X
4B	6X40	2-4-2	0	-	X	4	10 SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	X
6A	6X6	4	70	X	-	6	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	X
8A	6X40	2-4-2	0	-	X	8	3 SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	X

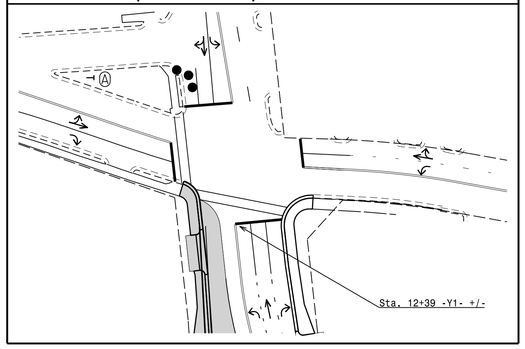
SIGNAL FACE I.D.

All Heads L.E.D.



23 | 11 | 21, 22, 24 / 41, 42 / 61, 62 / 81 | 82 | P21, P22 / P81, P82

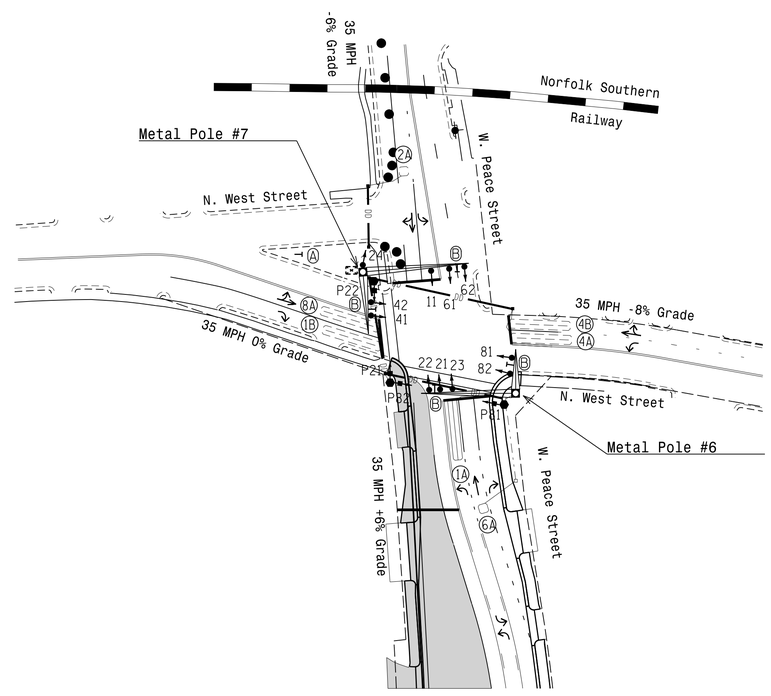
Proposed Stopbar Locations



SE-PAC 2070 TIMING CHART

FEATURE	PHASE 1	2	4	6	8
Min Green *	7	10	7	10	7
Passage Gap *	2.0	3.0	1.0	3.0	2.0
Maximum Green *	15	30	20	30	20
Yellow Change	3.0	4.3	4.5	4.3	3.8
Red Clear	2.1	1.6	1.6	1.6	1.5
Walk *	-	7	-	-	4
Pedestrian Clear	-	9	-	-	13
Added Initial *	-	-	-	-	-
Maximum Initial *	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-
Time To Reduce *	-	-	-	-	-
Minimum Gap	-	-	-	-	-
Recall Mode	-	MIN RECALL	-	MIN RECALL	-
Vehicle Call Memory	NON-LOCK	LOCK	NON-LOCK	LOCK	NON-LOCK
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.



3 Phase
Fully Actuted
(Raleigh Signal System)

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 may be lagged.
4. Reposition existing signal heads numbered 11, 21, 22, 23, 61 and 62.
5. Set all detector units to presence mode.
6. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
7. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
8. Pedestrian pedestals are conceptual and shown for reference only. See sheets P1-P3 for pushbutton location details.
9. Pavement markings are existing unless otherwise shown.
10. 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 Tracks	▬
●-●	Construction Zone Drums	●-●
▒	Construction Zone	▒
DD	Directional Drill	N/A
◎	Metal Pole with Mastarm	◎
⬡	Type II Signal Pedestal	●
N/A	Curb Ramp	◢
Ⓐ	"YIELD" Sign (R1-2)	Ⓐ
Ⓑ	Street Name Sign (D3-1)	Ⓑ

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Signal Upgrade - Temp. Design 2 (TMP Area II, Phase I Stage II)

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

W. Peace Street
at
N. West Street

Division 5 | Wake County | Raleigh

PLAN DATE: December 2015 | REVIEWED BY:
PREPARED BY: I. O. Umozurike | REVIEWED BY:

SCALE 0 50 1"=50'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 026486 ENGINEER ROBERT J. ZIEMBA

DocuSigned by: Robert J. Ziemba 1/29/2016
SIGNATURE DATE

SIG. INVENTORY NO. R-0046T2

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rziemba