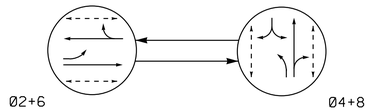
PROJECT REFERENCE NO.	SHEET NO.
U-4715B	Sig. 253.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

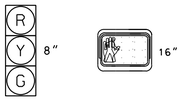
TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2+6	PHASE Ø4+8	FLASH
21,22	G	R	Y
41,42	R	G	R
61,62	G	R	Y
81,82	R	G	R
P21,P22	W	DW	DRK
P41,P42	DW	W	DRK
P61,P62	W	DW	DRK
P81,P82	DW	W	DRK

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

SIGNAL FACE I.D.

All Heads L.E.D.

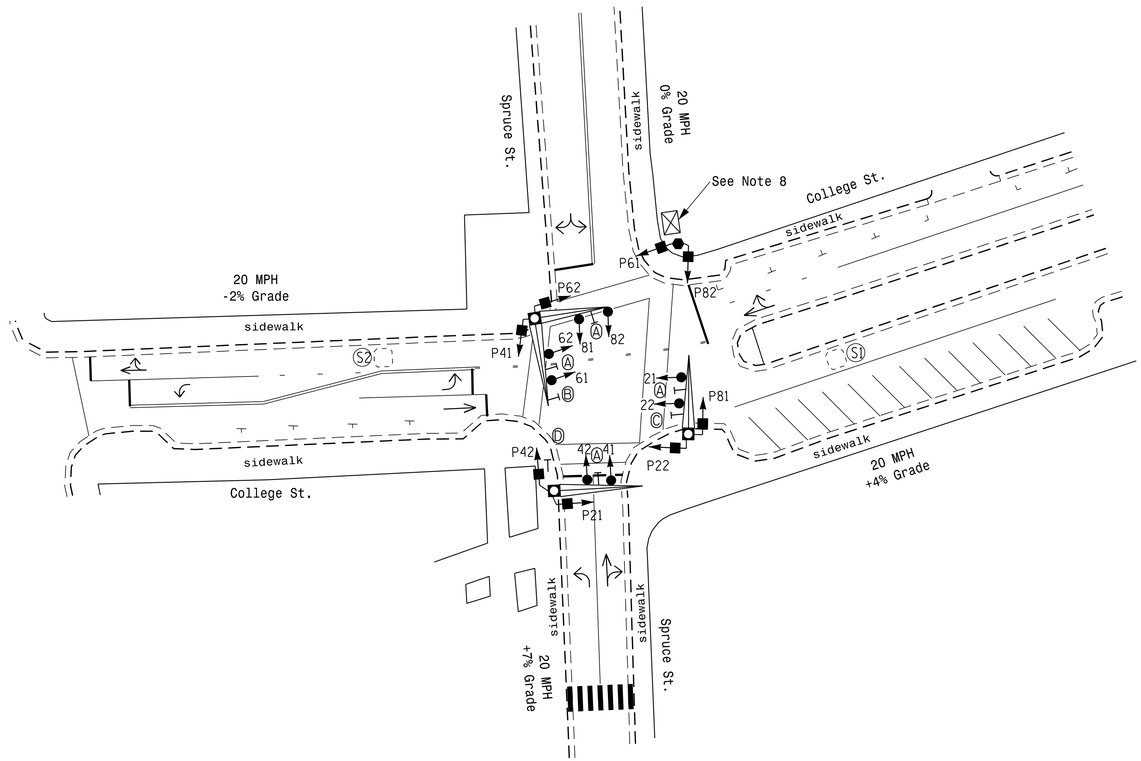


21,22
41,42
61,62
81,82

P21,P22
P41,P42
P61,P62
P81,P82

OASIS 2070E 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
S1	6x6	+125	3	-	-	-	-	-	-	-	Y	Y
S2	6x6	+110	3	-	-	-	-	-	-	-	Y	Y



OASIS 2070E TIMING CHART

FEATURE	PHASE 2	PHASE 4	PHASE 6	PHASE 8
Min Green 1 *	10	7	10	7
Extension 1 *	0.0	0.0	0.0	0.0
Max Green 1 *	30	20	30	20
Yellow Clearance	3.0	3.0	3.0	3.0
Red Clearance	2.3	2.3	2.3	2.4
Red Revert	2.0	2.0	2.0	2.0
Walk 1 *	23	11	18	4
Don't Walk 1	7	9	12	16
Walk Advance **	3.0	3.0	3.0	3.0
Seconds Per Actuation *	-	-	-	-
Max Variable Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Recall Mode	MAX/PED	MAX/PED	MAX/PED	MAX/PED
Vehicle Call Memory	-	-	-	-
Dual Entry	-	-	-	-
Simultaneous Gap	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.
** See Note 9.

2 Phase Pre-Timed (Asheville 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. Set all detector units to presence mode.
4. 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.
5. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
6. Pavement markings are existing.
7. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
8. Locate new cabinet on existing foundation.
9. Program controller to allow an Advance Walk movement before serving the vehicle phase.
10. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
11. Program Phase 2 and 6 for Rest-in-Walk.
12. Yellow clearance intervals for phase 4 and 8 may be decreased by 0.2 seconds per week until the desired value is reached.

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	→
▱	Metal Pole with Mastarm	▱
⬡	Type II Signal Pedestal	⬢
Ⓐ	'STREET NAME' Sign	Ⓐ
Ⓑ	'NO LEFT TURN' Sign R3-2	Ⓑ
Ⓒ	'NO RIGHT TURN' Sign R3-1	Ⓒ
Ⓓ	'DO NOT ENTER' Sign R5-1	Ⓓ

Signal Upgrade

Prepared for the Offices of:
CITY OF ASHEVILLE NORTH CAROLINA
161 S.Charlotte St.Asheville NC 28802

College St/Pack Square at Spruce St

Division 13 Buncombe County Asheville

PLAN DATE:	OCTOBER 2016	REVIEWED BY:	SMH
PREPARED BY:	BGR	REVIEWED BY:	JBV

REVISIONS	INIT.	DATE

SCALE 0 30 1"=30'

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 022599 ENGINEER JAMES B. VOSO
DocuSigned by: James Voso 140FD0037ED41FF
12/13/2016
SIGNATURE DATE
SIG. INVENTORY NO. COA-0103

Mattern & Craig
SINCE 1978
CONSULTING ENGINEERS • SURVEYORS
FIRM LICENSE No. C-1154
12 BROAD STREET
ASHEVILLE, NORTH CAROLINA 28801
(828) 254-2201
FAX (828) 254-4562

1:09:14 PM
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bgross