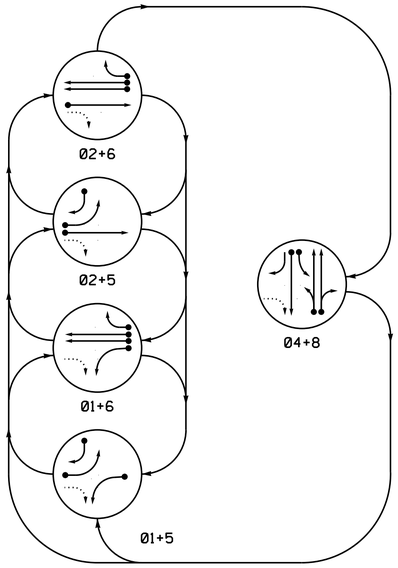
PROJECT REFERENCE NO.	SHEET NO.
C-5703	Sig. 140.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

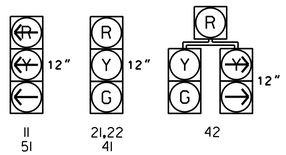
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	04+8	FLASH
11	~~—~~	~~—~~	~~R~~	~~R~~	~~R~~	~~R~~
21,22	R	R	G	G	R	Y
41	R	R	R	R	G	R
42	R/—	R	R/—	R	G	R
51	~~—~~	~~R~~	~~—~~	~~R~~	~~R~~	~~R~~
61,62	R	G	R	G	R	Y
81,82,83	R	R	R	R	G	R

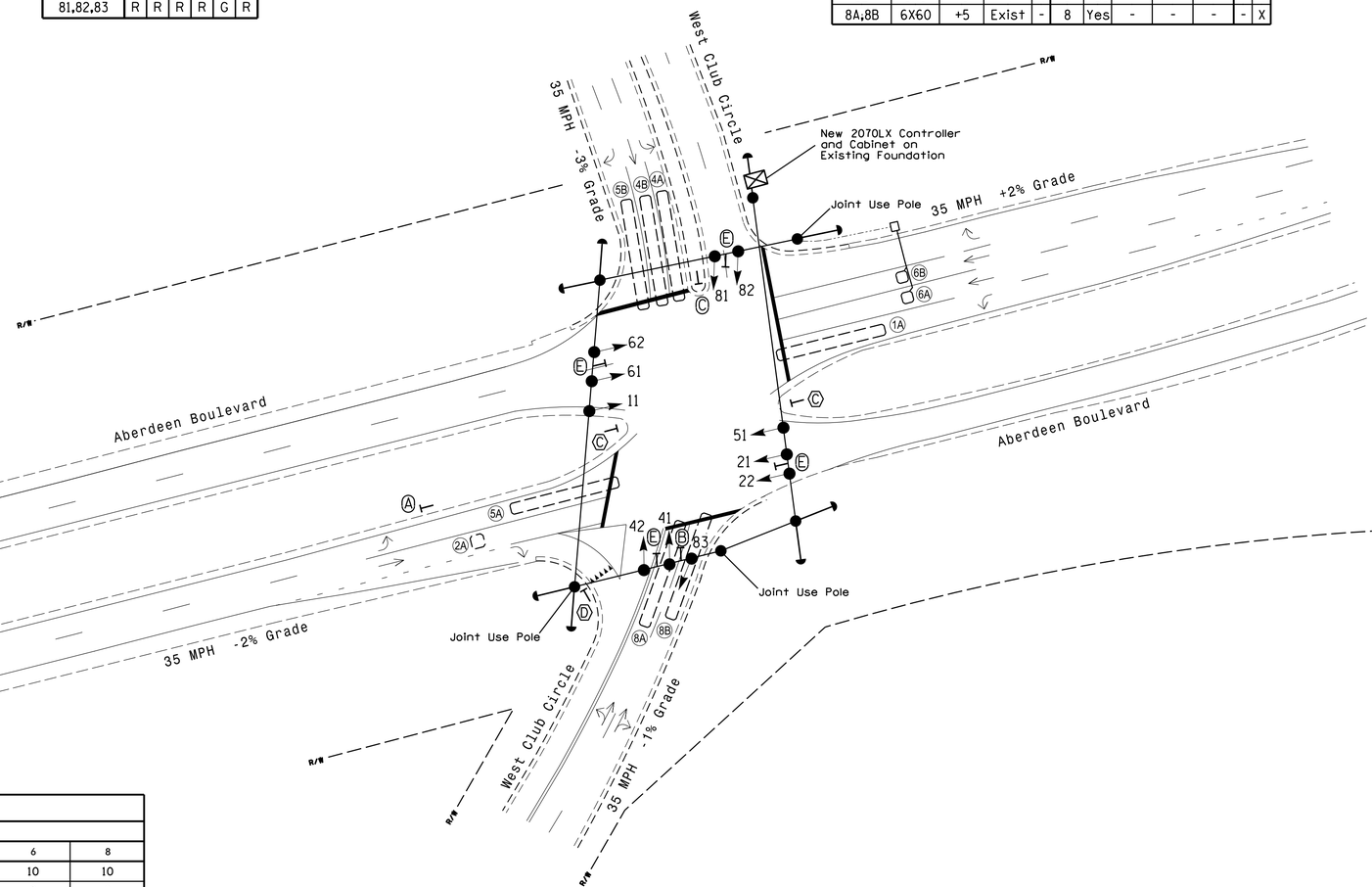
SIGNAL FACE I.D.

All Heads L.E.D.



DETECTOR INSTALLATION CHART

DETECTOR					PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	SYSTEM LOOP	NEW CARD
1A	6X60	+5	Exist	-	1	Yes	-	-	-	-	X
2A	6X6	70	Exist	-	2	Yes	-	-	-	-	X
4A,4B	6X60	+5	Exist	-	4	Yes	-	-	-	-	X
5A	6X60	+5	Exist	-	5	Yes	-	-	-	-	X
5B	6X60	+5	Exist	-	6	Yes	-	15	-	-	X
6A	6X6	70	4	X	6	Yes	-	-	-	-	X
6B	6X6	70	4	X	6	Yes	-	-	-	-	X
8A,8B	6X60	+5	Exist	-	8	Yes	-	-	-	-	X



TIMING CHART

FEATURE	PHASE 1	2	4	5	6	8
Min Green *	7	10	10	7	10	10
Walk *	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Veh. Extension *	1.0	3.0	2.0	1.0	3.0	2.0
Max 1 *	20	45	25	20	45	25
Yellow	3.7	4.0	4.1	3.0	3.0	4.1
Red Clear	1.5	1.4	2.4	3.5	3.4	2.4
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0
Actuations B4 Add *	-	-	-	-	-	-
Seconds /Actuation *	-	-	-	-	-	-
Max Initial *	-	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-	-
Time To Reduce *	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-
Locking Detector	-	X	-	-	X	-
Recall Position	-	VEH. RECALL	-	-	VEH. RECALL	-
Dual Entry	-	-	X	-	-	X
Simultaneous Gap	X	X	X	X	X	X

* 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.

5 Phase
Fully Actuated
Gastonia Signal System

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 and/or phase 5 may be lagged.
4. Set all detector units to presence mode.
5. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
6. In the event of loop replacement, refer to the current ITS and Signal Design Manual and submit a Plan of Record to the Signal Design Section.
7. Pavement markings are existing unless otherwise noted.
8. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
9. All cabinets and base extenders shall be black in color. See Project Special Provisions for details.
10. City system data:
    Controller Asset #0009.

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	
Ⓐ	"LEFT LANE MUST TURN LEFT" Sign (R3-7L)	Ⓐ
Ⓑ	Left Arrow "ONLY" Sign (R3-5L)	Ⓑ
Ⓒ	Keep Right Sign (R4-7A)	Ⓒ
Ⓓ	"YIELD" Sign (R1-2)	Ⓓ
Ⓔ	Street Name Sign	Ⓔ

Signal Upgrade

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:
SUMMIT DESIGN AND ENGINEERING SERVICES
NC FIRM LICENSE No: P-0339
320 Executive Court
Hillsborough, NC 27278
(919) 732-3883
(919) 732-6676 (FAX)

Prepared For:
GASTONIA NC
Great Place. Great People. Great Promise.
181 S. South St, Gastonia, NC 28052

SCALE 0 40 1"=40'

Aberdeen Boulevard
at
West Club Circle

Division 12 Gaston County Gastonia

PLAN DATE:	April 2021	REVIEWED BY:	J. Smith
PREPARED BY:	M. Parker	REVIEWED BY:	E. Sirgany

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 018174 ENGINEER EDWARD W. SIRGANY

DocuSigned by: Edward W Sirgany 1/13/2022
39DF8C864664E0... DATE

SIG. INVENTORY NO. City-09